Page

GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd. Copyright

OM protein - protein search, using sw model

February 21, 2006, 07:54:15; Search time 29.5 Seconds (without alignments) 61.970 Million cell updates/sec Run on:

US-10-601-059-11 Perfect score:

114 1 PRCGNPDVANYNPPPRKPK 19 Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

283416 seqs, 96216763 residues Searched:

283416 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

1: Pirl:* 2: pir2:* 3: pir3:* 4: pir4:* PIR 80:* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	A (EC	gelatinase A (EC 3	gelatinase A (EC 3	4	gelatinase A (EC 3	matrix metalloprot	matrilysin (EC 3.4	m	_	interstitial colla	matrilysin (EC 3.4	zinc metalloprotei	stromelysin 1 (EC	N	~	~	stromelysin 1 (EC	-	stromelysin 1 (EC	_		interstitial colla		О	interstitial colla	hypothetical prote	æ	æ	interstitial colla
SUMMARIES	OI	A28153	S70365	A42496	S34780	S46492	JC5743	KCHUM	A53711	S29243	A23685	A57490	T00643	KCRTIH	JC6505	KCHUS2	KCRTS2	KCMSS1	KCRBS1	KCHUS1	E96724	KCRBI	KCPGI	S36783	KCHUN	KCBOI	T22321	A49499	T08836	KCHUI
	BD	٦	~	~	N	Н	7	-1	~	7	7	~	7	-	-	-	-	Н	Н	-	~	-	Ч	Н	Н	Н	~	~	~	7
	Query Match Length DB	099	662	662	662	663	483	267	471	472	466	267	377	475	476	476	476	477	478	477	378	468	469	258	467	469	635	470	305	469
d	Query Match	100.0	100.0	100.0	100.0	100.0	71.9	68.4	63.2	63.2	60.5	59.6	58.8	57.9	7.	57,9	57.9	57.9	57.9	55.3	53.1	50.0	50.0	44.7	44.7	44.7	44.3	43.9	43.4	43.0
	Score	114	114	114	114	114	82	78	72		69		67				99	99	99	63	60.5	57	57	51	51	'n	50.5	20	49.5	49
	Result No.	-	7	ო	4	5	9	7	80	თ	10	11	12	13	14	15	16	17	18	19	50	21	22	23	24	25	56	27	28	29

gelatinase (EC 3.4		gelatinase B (EC 3	gelatinase B (EC 3	m	m	gelatinase B (EC 3	В	metalloproteinase	probable metallopr	probable metallopr	probable matrix me	circumsporozoite p	hypothetical prote	major facilitator	nolE protein - Rhi
A23715	A42401	A53796	JC4364	S62907	146031	152580	JC1456	T51957	G84885	E71433	T37252	B29795	C90443	T40380	S11786
ď	~	Н	N	0	Н	Н	N	~	~	7	~	~	7	N	N
31	462	707	708	708	712	730	730	341	342	364	521	189	256	577	110
ч	42.1	42.1	42.1	42.1	42.1	42.1	42.1	41.7	41.7	41.2	41.2	40.4	40.4	40.4	39.5
42	4						_	'n	'n	_	_				
48 42.	48 4	48	48	48	48	48	4	47.5	47.	47	47	46	46	46	45

ALIGNMENTS

gelatinase A (BC 3.4.24.24) precursor - human

NiAlternate names: collagenase type IV; matrix metalloproteinase 2 (MMP2); progelatinase C; Species: Homo sapiens (man)
C; Species: Homo sapiens
C; Specie

A;Molecule type: mRNA A;Residues: 30-660 <COL. A;Crosa-references: UNIPROT:P08253; UNIPARC:UPI0000172CE7; GB:J03210; NID:g180670; PIDN: A;Crosa-references: UNIPROT:P08253; UNIPARC:UPI0000172CE7; GB:J03210; NID:g180670; PIDN: R;Huhtala, P.; Eddy, R.L.; Fan, Y.S.; Byers, M.G.; Shows, T.B.; Tryggvason, K. Genomics 6, 554-559; 1990 A;Title: Completion of the primary structure of the human type IV collagenase preproenzy A;Reference number: A34202; MUID:90228972; PMID:2158484

A,Molecule type: DNA A,Residues: 1-51. -402. A,Gross-references: UNIPARC:UPI000016A6E3; GB:M33789; NID:g180600; PIDN:AAA52027.1; PID: R,Huhtala, P.; Chow, L.T.; Tryggvason, K. C, Balol. Chem. 265, 11077-11082, 1990 A,Title: Structure of the human type IV collagenase gene. A,Reference number: A42225; MUID:90293047; PMID:2162831

A;Status: not compared with conceptual translation
A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-51;220-393 <HUH>
A;Cross-references: UNIPARC:UF1000116A6E3; UNIPARC:UF10000172CE8; GB:M55593; GB:J05471;
A;Cross-references: UNIPARC:UF100016A6E3; UNIPARC:UF10000172CE8; GB:M55593; GB:J05471;
A;Note: neither the complete amino acid nor the complete nucleotide sequence is given in R;Frisch, S.M.; Reich, R.; Collier, I.E.; Genrich, L.T.; Martin, G.; Goldberg, G.I.
Oncogne 5, 75-83, 1990
A;Title: Adenovirus EIA represses protease gene expression and inhibits metastasis of hubits frame anumber: A60187; MUID:90206614; PMID:2157183

A;Status: not compared with conceptual translation A;Molecule type: DNA

Cross-references: UNIPARC:UPI0000172CE9

Rjokada, Y.; Morodomi, T.; Enghild, J.J.; Suzuki, K.; Yasui, A.; Nakanishi, I.; Salvesen Bur. J. Balochem. 194, 721-730, 1990
Alfitle: Matrix metalloproteinase 2 from human rheumatoid synovial fibroblasts. Purifica A;Reference number: S13858; MUID:91099351; PMID:2269296

A;Molecule type: protein A;Residues: 30-45;110-124 <0KA> A;Crosa-references: UNIPARC:UPI0000172CEA; UNIPARC:UPI0000172CEB R;Crabbe, T.; Ioannu, C.; Docherty, A.J.P. Bur. J. Biochem. 218, 431-438, 1993

```
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
hes 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A Status: preliminary
A Molecule type: mRNA
A Residues: 1-662 <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Accession: S70365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Accession: A42496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AyMolecule type: protein

AyResdues: 110-114 <ITO>

AyCess references: UNIPARC:UPI0000172CEF

A/Genetics:
A/Geneti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A/Moclecule type: protein
A/Moclecule type: protein
A/Moclecule type: protein
A/Moclecule type: protein
A/Kesidues: 110-115 <CRA>
A/CRAS
A/Cross references: UNIPARC: UPI0000172CED
R/EXD. By Exes. 52, 5-16, 1991
A/Title: Characterization of the major matrix degrading metalloproteinase of human corne
A/Moclecule type: protein
A/Mo
A;Title: Human progelatinase A can be activated by autolysis at a rate that is concentral A;Areference number: 639436; MUID:94034834; PMID:8269931
A;Accession: 639436
A;Molecule type: protein
                                                                                                                                                                                           A;Residues: 30-44,444-456 <CR2>
A;Cross-references: UNIPARC:UPI00001723BF; UNIPARC:UPI0000172CEC
R;Stetler-Stevenson, W.G.; Krutzsch, H.C.; Wacher, M.P.; Margulies, I.M.K.; Liotta, L.A. D. Blol. Chem. 264, 1353-1356, 1989
A;Title: The activation of human type IV collagenase proenzyme. Sequence identification A;Reference number: A31480; MUID:89109136; PMID:2536363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  F;573,642/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 660;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: protein
A; Residues: 110-123 <STE>
A; Cross-references: UNIPARC: UPI0000158DA9
R; Crabbe, T.; Smith, B.; O'Connell, J.; Docherty, A.
FEBS Lett. 345, 14-16, 1994
A; Title: Human progelatinase A can be activated by matrilysin.
A; Reference number: 844432; MUID:94252395; PMID:8194591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 114; DB 1;
100.0%; Pred. No. 8.5e-10;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best_Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Accession: S44432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ሯ
```

```
C;Accession: $70365
R;Matsumoto, S.; Katoh, M.; Watanabe, T.; Masuho, Y.
Bjochim. Bjophys. Acta 1307, 137-139, 1996
A;Title: Molecular cloning of rabbit matrix metalloproteinase-2 and its broad expression A;Reference number: $70365; MUID:96283805; PMID:8679695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A/Cross-references: UNIPROT: P50757; UNIPARC: UPI000012F23F; EMBL: D53579; NID: 9944816; PID: C; Superfamily: gelatinase A; fibronectin type II repeat homology; hemopexin repeat homology (C; Superfamily: gelatinase, actaloproteinase; zinc; zymogen F; 233-74/Domain: fibronectin type II repeat homology (2F1) (F; 291-32/Domain: fibronectin type II repeat homology (2F2) (F; 349-390/Domain: fibronectin type II repeat homology (2F2) (F; 349-390/Domain: fibronectin type II repeat homology (2F2) (F; 349-390/Domain: fibronectin type II repeat homology (2F9) (F; 349-340/A) (413/Binding site: zinc, catalytic (Gys, His, His, His) (inhibited) #status F; 404/Active site: Glu #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Accession: A42496
R;Reponen, P.; Sahlberg, C.; Huhtala, P.; Hurskainen, T.; Thesleff, I.; Tryggvason, K.
B;Reponen, P.; Sahlberg, C.; Huhtala, P.; Hurskainen, T.; Thesleff, I.; Tryggvason, K.
D Biol. Chem. 267, 7856-7862, 1992
A;Hitle: Molecular cloning of murine 72-kDa type IV collagenase and its expression during A;Reference number: A42496; MUID:92218452; PMID:1373140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: mRNA
A; Residues: 1-662 < REP>
A; Cross-references unipport: P33434; UNIPARC:UPIO00002777E; GB:M84324; NID:g198465; PIDN:JA; Residues: 1-662 < REP>
A; Cross-references unipport: Dackbone (NCBIN:96943, NCBIP:96445)
C; Superfamily: gelatinase A; fibronectin type II repeat homology; hemopexin repeat homolog (S, Eywords: hydrolase; metalloproteinase; zinc; zymogen
F; 233-274/Domain: fibronectin type II repeat homology < 2F1>
F; 231-332/Domain: fibronectin type II repeat homology < 2F8>
F; 349-390/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibronectin type II repeat homology < 2F8>
F; 349-300/Domain: fibrone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
gelatinase A (BC 3.4.24.24) precursor - rabbit
NiAlternate names: matrix metalloproceinase-type IV collagenase
CiSpecies: Oryctolagus cuniculus (domestic rabit)
CiSpecies: 21-Apr-1997 #sequence_revision 09-May-1997 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gelatinase A (EC 3.4.24.24) precursor - mouse
N;Alternate names: collagenase type IV, 72K
C;Species: Mus musculus (house mouse)
C;Date: 04-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 662;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 662;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  / match 100.0%; Score 114; DB 2; Local Similarity 100.0%; Pred. No. 8.6e-10; les 19; Conservative 0; Mismatchem n.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 114; DB 2;
Pred. No. 8.6e-10;
```

Gaps

ö

Indels

RESULT 534780

100

```
C;Accession: JC5743
R;Bartlett, J.D.; Simmer, J.P.; Xue, J.; Margolis, H.C.; Moreno, E.C.
Rsartlett, J.D.; Simmer, J.P.; Xue, J.; Margolis, H.C.; Moreno, E.C.
A;Title: Molecular cloning and mRNA tissue distribution of a novel matrix metalloprotein A;Reference number: JC5743; MUID:97149288; PMID:8996096
A;Accession: JC5743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Residues: 1-483 <BAR>
A;Cross-references: UNIPROT:P79287; UNIPARC:UPI000012F257; GB:U54825; NID:g1800212; PIDN
A;Experimental source: enamel organ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C. Comment: This enzyme plays a role in enamel biomineralization and development.
C. Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloprotei
C. Keywords: hydrolase; metalloproteinase; zinc
F:1-22/Domain: signal sequence #status predicted <SIG>
F:23-483/Product: matrix metalloproteinase #status predicted <MAT>
F:68-271/Domain: matrix metalloproteinase homology <MMP>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             F;200-483/Domain: hemopexin repeat homology <PXN>
F;100,226,230,326/Binding site: zinc, catalytic (Cys, His, His, His) (inhibited) #status
F;226,230,236/Binding site: zinc, catalytic (His) #status predicted
F;227/Active site: Glu #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           matrilysin (EC 3.4.24.23) precursor - human
N;Alternate names: matrin; matrix metalloproteinase 7 (MMP7); probable metalloproteinase
N;Contains: promatrilysin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R;Miyazaki, K.; Hattori, Y.; Umenishi, F.; Yasumitsu, H.; Umeda, M.
Eander Res 50, 7758-7764, 1990
A;Title: Purification and Characterization of extracellular matrix-degrading metalloprot
A;Reference number: A60539; MUID:91070531; PMID:2253219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R;Marti, H.P.; McNeil, L.; Thomas, G.; Davies, M.; Lovett, D.H.
Bochem. J. 285, 899-905, 1992
A;Title: Molecular characterization of a low-molecular-mass matrix metalloproteinase sec
A;Reference number: S24324; MUID:92359961; PMID:1497627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: UNIPARC:UP100000422BD; EMBL:Z11887; NID:g35802; PIDN:CAA77942.1; PID C;Comment: This enzyme is similar in its activity to stromelysin and degrades various ex
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: UNIPROT:P09237; UNIPARC:UP100000422BD; EMBL:X07819; NID:g35798; PIDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cispecies: Homo sapiens (man)
Cispecies: Homo sapiens (man)
Cibate: 30-Sep-1992 #sequence_revision 30-Sep-1992 #text_change 09-Jul-2004
Cibate: 30-Sep-1992 #sequence_revision 30-Sep-1992 #text_change 09-Jul-2004
Cibates and B28816; A60539; S24324
R;Muller, D.; Quantin, B.; Gesnel, M.C.; Millon-Collard, R.; Abecassis, J.; Breathnach, Biochem. J. 253, 197-192, 1988
A;Title: The collagenase gene family in humans consists of at least four members.
A;Reference number: A90339; MUID:88339885; PMID:2844164
                                                                                                                                                                                                                                                  matrix metalloproteinase (EC 3.4.24.-) precursor - pig
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 09-Dec_1997 #sequence_revision 23-Jan-1998 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 483;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             71.9%; Score 82; DB 2; Le 73.7%; Pred. No. 6.1e-05; ive 1; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A,Molecule type: protein
A,Residues: 18-35,'X',37-42 <MIY>
A,Cross-references: UNIPARC:UP10000172CE6
                PRCGNPDVANYNFFPRKPK 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98 PRCGVPDVANYRLFPGEPK 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ilarity 73.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
hes 14; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: mRNA
A; Residues: 1-267 < MUL>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Residues: 1-267 <MAR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Accession: S24324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Accession: B28816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Accession: A60539
                                                          97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
gelatinase A (EC 3.4.24.24) precursor - rat
NyAlternate names: collagenase type IV
C;Species: Natus norvegicus (Norway rat)
C;Species: 22-Nov-1993 #sequence_revision 01-Dec-1995 #text_change 09-Jul-2004
C;Accession: S34780; S32525
R;Loovett, D.H.
A;Reference number: S34780
A;Recession: S44780
A;Residues: 1-662 < LOV>
A;Residues: 1-662 < LOV>
A;Cross_references: UNIPROT: P33436; UNIPARC: UPIO00012F240; EMBL: X71466; NID: G311750; PIE
B;Marti, H.P.; McNeil, L.; Davies, M.; Martin, J.; Lovett, D.H.
B;Marti, H.P.; McNeil, L.; Davies, M.; Martin, J.; Lovett, D.H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Status: preliminary
A;Molecule type: mRNA
A;Molecule type: mRNA
A;Molecule type: mRNA
A;Residues: 'K',27-662 -MAR>
A;Crose.references: UNIPARC;UPI0000175D90; EMBL:X71466
G;Superfamily: gelatinase A; fibronectin type II repeat homology; hemopexin repeat homology; C;Superfamily: gelatinase A; fibronectin type II repeat homology c2F1>
F;233-274/Domain: fibronectin type II repeat homology c2F1>
F;249-390/Domain: fibronectin type II repeat homology c2F9>
F;349-390/Domain: fibronectin type II repeat homology c2F9>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P;465-662/Domain: hemopexin repeat homology <PXN>
F102,403,407,413/Binding site: zinc, catalytic (Cys, His, His, His) (inhibited) #status
F;403,407,413/Binding site: zinc, catalytic (His) (active) #status predicted
F;404/Active site: Glu #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A, Residues: 1.663 «AIM»

A, Cross-references: UNIPROT:090611; UNIPARC:UPI000012F23E; EMBL:U07775; NID:g504475; PID

A, Cross-references: UNIPROT:090611; UNIPARC:UPI000012F23E; EMBL:U07775; NID:g504475; PID

A, Mote: in the authors' translation 205-Asp is shown after residue 201 and, consequently
C; Superfamily: gelatinase A; fibronectin type II repeat homology; hemopexin repeat homology
C; Keywords: hydrolase; metalloproteinase; zinc; zymogen
F; 67-216, 391-443/Domain: matrix metalloproteinase homology 42F1>
F; 230-271/Domain: fibronectin type II repeat homology 42F8>
F; 486-329/Domain: fibronectin type II repeat homology 42F9>
F; 466-663/Domain: hemopexin repeat homology 42F9>
F; 466-663/Domain: hemopexin repeat homology 42F9>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A,Title: Homology cloning of rat 72 kDa type IV collagenase: cytokine and second-messeng
A,Reference number: S32525, MUID:93249363, PMID:7916617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        F;99,400,404,410/Binding site: zinc, catalytic (Cys, His, His, His) (inhibited) #status F;400,404,410/Binding site: zinc, catalytic (His) (active) #status predicted F;401/Active site: Glu #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S46492
S46492
S46492
Selections of EC 3.4.24.24) precursor - chicken
C;Species: Gallus gallus (chicken)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: S46492
S;Aimes, R.T.; French, D.L.; Quigley, J.P.
Biochem, J. 300, 729-736, 1994
A;Title: Cloning of a 72 kDa matrix metalloproteinase (gelatinase) from chicken embryo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 663;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 114; DB 2; Length 100.0%; Pred. No. 8.6e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 114; DB 1; 100.0%; Pred. No. 8.6e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Accession: S46492
A;Status: preliminary
A;Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Accession: S32525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
```

셤 ò

ö

Gaps

; 0

υ

```
A/Molecule Type: mRNA

A/Rolecule Type: MRNA

A/Rolecule Type: MRNA

A/Ross-references: UNIPROT:P33435; UNIPARC:UPI00000213AD; EMBL:X66473; NID:g53603; PIDN

A/Cross-references: UNIPROT:P33435; UNIPARC:UPI00000213AD; EMBL:X66473; NID:g53603; PIDN

C/Superfamily: interstitial collagenase; hemopexin repeat homology cMMP>

C/Superfamily: matrix metalloproteinase homology cMMP>

F/57247,223,227,233/Binding site: zinc, catalytic (Cys, His, His, His, His) (inhibited) #status F;224/Active site: Glu #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Accession: A23665
R;Quinn, C.O.; Scott, D.K.; Brinckerhoff, C.E.; Matrisian, L.M.; Jeffrey, J.J.; Partridge, A;Title: Rat collagenase. Cloning, amino acid sequence comparison, and parathyroid hormon A;Reference number: A23685; MUID:91093077; PMID:2176215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: UNIPROT:P23097; UNIPARC:UPI000012F24F; GB:M60616; GB:M36452; NID:g207
C;Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloprotein
C;Keywords: hydrolase; metalloproteinase; zinc; zymogen
F;59-262/pomain: matrix metalloproteinase homology <MMP>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matrilyain (EC 3.4.24.23) precursor - rat
NyAlternate names: matrix metalloproteinase 7 (MMP7)
C;Species: Rattus norvegicus (Norway rat)
C;Species: Rattus norvegicus (Norway rat)
C;Accession: A57490
C;Accession: A57490
R;Abramson, S.R.; Conner, G.B.; Nagase, H.; Neuhaus, I.; Woessner Jr., J.F.
J. Biol. Chem. 270, 16016-16022, 1995
A;Fitle: Characterization of rat uterine matrilysin and its cDNA. Relationship to human ray. Reference number: A57490; MUID:95332299; PMID:7608162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: UNIPROT:P50280; UNIPARC:UPI000012F244; GB:L24374; NID:9402492; PIDN:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      F;273-466/Domain: hemopexin repeat homology <PXN>
F;217.221,221/227/Binding site: zinc, catalytic (Cys, His, His, His) (inhibited) #status
F;217,221,227/Binding site: zinc, catalytic (His) (active) #status predicted
F;218/Active site: Glu #status predicted
            A,Title: Cloning and sequencing of mouse collagenase cDNA. Divergence of mouse and rat A,Reference number: S29243; MUID:93011910; PMID:1383028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           interstitial collagenase (EC 3.4.24.7) precursor - rat (fragment)
NiAlternate names: matrix metalloproteinase 1 (MmP1); vertebrate collagenase
C.Species: Rattus norvegicus (Norway rat)
C.Species: Q.Oct-1991 #sequence_revision 04-Oct-1991 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 72; DB 2; Length 472;
Pred. No. 0.0022;
0; Mismatches 6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 466;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 69; DB 2;
Pred. No. 0.0063;
0; Mismatches 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  95 PRCGVPDVGEYNVPPRTLK 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRCGVPDVGVYNVFPRTLK 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 68.4%;
Matches 13; Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60.5%;
ilarity 68.4%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
es 13; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-466 <QUI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A, Accession: A57490
A, Status: preliminary
A, Molecule type: mRNA
A, Residues: 1-267 <ABR>
                                                                                                                                        A;Status: preliminary
                                                                                                      A; Accession: S29243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ab3011
Collagenase 3 (EC 3.4.24.-) - human
NAPALernace names: matrix metalloproteinase 13 (MMP13)
CyAlternace names: matrix metalloproteinase 13 (MMP13)
C;Species: Homo sapiens (man)
C;Date: 07-Jul-1995 #sequence_revision 07-Jul-1995 #text_change 09-Jul-2004
A;Freije, J.M.P.; 1994
A;Freije, J.M.P.; 1994
A;Freije, J.M.P.; 1994
A;Freije, J.M.P.; 1994
A;Accession: A53711
A;Acces
                                                                                                                                                                  A)Consistences: GDB:125751; OMIM:178990
A;Map position: 11q21-11q22
A;Map position: 11q21-11q22
C;Superfamily: matrix metalloproteinase homology
C;Superfamily: matrix metalloproteinase; metalloproteinase; zin R;1-17/Domain: signal sequence #status predicted <SIG>F;18-267/Product: promatrilysin #status predicted <PRO>
F;18-267/Product: promatrilysin #status predicted <PRO>
F;18-259/Domain: matrix metalloproteinase homology <MMP>
F;55-259/Domain: matrix metalloproteinase homology <MMP>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A Map position: 11922.2-11922.3

C; Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloprotein

C; Keywords: hydrolase; metalloproteinase; zinc; zymogen

C; Keywords: hydrolase; metalloproteinase homology kMMP-

F; 278-471/Domain: matrix metalloproteinase homology kMMP-

F; 278-471/Domain: hemopexin repeat homology kMNP-

F; 228-226, 226, 232/Binding site: zinc, catalytic (Cys, His, His, His, His) (inhibited) #status

F; 222, 226, 232/Binding site: zinc, catalytic (His) (active) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      F;95-267/Product: matrilygin #status predicted <MAT>
8677.214,218.224/Binding site: zinc, catalytic (Cys, His, His, His) (inhibited) #status
F;214,218,224/Binding site: zinc, catalytic (His) (active) #status predicted
F;215/Active site: Glu #status predicted
s of types II, IV, IX, X, and XI.
C;Comment: Matrilysin hydrolyzes peptide bonds in plasminogen to yield a fragment with
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                interstitial collagenase (EC 3.4.24.7) precursor - mouse
N;Alternate names: matrix metalloproteinase 1 (MMP1)
C;Species: Mus musculus (house mouse)
C;Accession: S2243
R;Henriet, P.; Rousseau, G.G.; Beckhout, Y.
FEBS Lett. 310, 175-178, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   68.4%; Score 78; DB 1; Length 267; 68.4%; Pred. No. 0.00014;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 471;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     63.2%; Score 72; DB 2; Le 68.4%; Pred. No. 0.0022; tive 0; Mismatches 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C,Genetics:
A,Gene: GDB:MMP13; CLG3
A,Cross-references: GDB:373966; OMIM:600108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                        A;Gene: GDB:MMP7; MPSL1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
```

```
A; Note: Intron positions were determined by comparison of the previously reported CDNA 8

A; Sanchez-Lopez, R.; Nicholson, R.; Gesnel, M.C.; Matrisian, L.M.; Breathnach, R.

B; Sanchez-Lopez, R.; Nicholson, R.; Gesnel, M.C.; Matrisian, L.M.; Breathnach, R.

J; Biol. Chem. 263, 11892-11899, 1988

A; Title: Structure-function relationships in the collagenase family member transin.

A; Reference number: S22767; MUID: 88298869; PMID: 2841336

A; Contents: annotation; active site; activation sin the autoinhibitory region showed a much increased te A; Note: mutations of His-216, Glu-217, and His-226 inactivate the enzyme

R; Park, A.J.; Matrisian, L.M.; Kells, A.F.; Pearson, R.; Yuan, Z.; Navre, M.

J; Blol. Chem. 266, 1584-1590, 1991

A; Title: Mutational analysis of the transin (rat stromelysin) autoinhibitor region demon A; Note: Arg-89 and Cys-92 are essential for maintaining latency

C; Comment: This enzyme degrades various extracellular matrix proteins, including fibrone C; Comment: Stromolysin 1 hydrolyzes peptide bonds in plasminogen to yield a fragment wit C; Comment: Stromelysin 1 activates its proenzyme after cleavage(s) within the activation C; Comment: Prostromelysin is found in glycosylated and unglycosylated forms, both of whi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Description: endopeptidase preferentially hydrolyzing peptide bonds on the carboxyl si C; Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloprotei C; Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloprotei C; R; Newvords: calcium; extracellular matrix; fibroblast; glycoprotein; hydrolase; metallop F; 18.18.475/Product: prostromelysin 1 #status predicted <SIG>
F; 18.9.77/Domain: activation peptide #status predicted <ARO>
F; 88.956/Domain: matrix metalloproteinase homology <MMP>
F; 88.956/Region: autoinhibitory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A,Cross-references: UNIPROT:055123; UNIPARC:UPI0000003F45; GB:Y13185; NID:g2791311; PIDN C;Comment: This enzyme degrades various extracellular matrix proteins, including fibrone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C.Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloprotei C; Superfamily: extracellular matrix; fibroblast; glycoprotein; hydrolase; metallop F;1-17/Domain: signal sequence #status predicted <SIG> F;18-476/Product: prostromelysin 2 #status predicted <PRO> F;18-99/Domain: activation peptide #status predicted <PRO> F;60-264/Domain: matrix metalloproteinase homology <WMP> F;90-97/Region: autoinhibitory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        F:98-475/Product: stromelygin 1 #status predicted <MAT>
F:98-475/Product: stromelygin 1 #status predicted <MAT>
F:282-475/Domain: hemopexin repeat homology <PXN>
F:282-475/Domain: hemopexin repeat homology <PXN>
F:90,216,220,226/Binding site: zinc, catalytic (Cys, His, His, His) (inhibited) #status
F:118/Binding site: carbohydrate (Ann) (covalent) #status predicted
F:216,220,226/Binding site: zinc, catalytic (His) (active) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gene 202, 75-81, 1997
A,Title: cDNA cloning and expression of the gene encoding murine stromelysin-2 (MMP-10)
A,Reference number: JC6505, MUID:98087420; PMID:9427548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Date: 16-Oct-1998 #sequence_revision 16-Oct-1998 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Introns: 33/3; 115/2; 165/1; 207/1; 262/1; 310/2; 355/1; 408/2; 443/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
    number: A26403; MUID:87146421; PMID:3547333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           57.9%; Score 66; DB 1; 57.9%; Pred. No. 0.019;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          stromelysin 2 (EC 3.4.24.22) precursor - mouse N;Alternate names: matrix metalloproteinase 10 C;Species: Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    F;288-475/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;217/Active site: Glu #status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRCGVPDVGGFSTFPGSPK 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Accession: JC6505; Madlener, M.; Werner, S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Residues: 1-476 < MAD>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Accession: JC6505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Gene: MMP-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Function:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Genetics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Stromelysin 1 (EC 3.4.24.17) precursor - rat
N;Alternate names: collagenase activating protein; matrix metalloproteinase 3 (MMP3); pr
C;Species: Rattus norvegicus (Norway rat)
C;Date: 13-Aug-1986 #sequence revision 13-Aug-1986 #text_change 09-Jul-2004
C;Accession: A00997; PS0150; $22767
C;Accession: A00997; PS0150; $22767
BMBO. 14, 1435-1440, 1985
A;Title: Epidermal growth factor and oncogenes induce transcription of the same cellular
A;Reference number: A00997; MUID:85284930; PMID:3875482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Accession: A00997
A; Molecule type: mRNA
A; Cross-references: UNIPROT: P03857; UNIPARC: UPI000012F242; GB: X02601; NID: 957460; PIDN: C
B; Umenishi, P.; Yasumitsu, H.; Ashida, Y.; Yamauti, J.; Umeda, M.; Miyazaki, K.
J; Biochem. 108, 537-543, 1990
A; Title: Purification and properties of extracellular matrix-degrading metallo-proteinas
A; Reference number: PS0150; MUID: 91154156; PMID: 1963430
A; Accession: PS0150
                              C;Keywords: hydrolase; metalloproteinase; zinc; zymogen
F;1-20/Domain: signal sequence #status predicted <SIG>
F;1-20/Domain: signal sequence #status predicted <NAT>
F;21-86/Product: matrilysin #status predicted <NAT>
F;80-20/Domain: matrix metalloproteinase homology <NMP>
F;90-217,221,227/Binding site: zinc, catalytic (Cys, His, His, His) (inhibited) #status
F;217,221,227/Binding site: zinc, catalytic (His) (active) #status predicted
F;218/Active site: Glu #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      zinc metalloproteinase homolog F316.6 - Arabidopais thaliana (5.5pecies Arabidopsis thaliana (mouse-ear cress) (5.5pecies Arabidopsis thaliana (mouse-ear cress) (5.5pecies 10. F6b-1999 #sequence_revision 01-F6b-1999 #text_change 09-Jul-2004 (5.4ccession: T00643 W. G., T. Conway, A.B.; Kurtz, D.B.; Conway, A.R.; Au, M.; Araujo, Vysotskaia, V.S.; Yu, G.; Ecker, J.; Theologis, A.; Davis, R.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Reference number: 214197
A;Accession: TO0643
A;Accession: TO0643
A;Accession: TO0643
A;Accession: TO0643
A;Molecule type: DNA
A;Residues: 1-377 <FED.
A;Residues: 1-377 <FED.
A;Accesses: UNIPROT: O48680; UNIPARC: UPI00000AB794; EMBL: AC002396; NID: G2749918; A;Experimental source: cultivar Columbia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: protein
A; Residues: 19-20, 'X', 22-28,110-112,'X', 114-115,'X', 117,'X', 119;309-325 < UME>
A; Residues: 19-20, 'X', 22-28,110-112,'X', 114-115,'X', 117,'X', 119;309-325 < UME>
A; Cross-references: UNIPARC: UP10000172CE1; UNIPARC: UP10000172CE3
B; Breathnach, R.; Martislan, L.M.; Gesnel, M.C.; Staub, A.; Leroy, P.
Nucleic Acids Res. 15, 1139-1151, 1987
A; Title: Sequences coding for part of oncogene-induced transin are highly conserved in a
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        114 PRCGNPDVVNGTSTMHSGRKTFEVSPAGRGORFHAVKHYSFFGGEPR 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 377;
                                                                                                                                                                                                                                                                                                                                                                        Length 267;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Indels
C; Superfamily: matrilysin; matrix metalloproteinase homology
                                                                                                                                                                                                                                                                                                                                                                        59.6%; Score 68; DB 2; llarity 57.9%; Pred. No. 0.0051; Conservative 2; Mismatches 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 67; DB 2;
Pred. No. 0.01;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRCGVPDVAEFSLMPNSPK 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        58.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 58.8
Best Local Similarity 29.8
Matches 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRCGNPDVAN-
                                                                                                                                                                                                                                                                                                                                                                                                               l Similarity
11; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C,Genetics:
A,Gene: ATSP:F316.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Map position: 1
                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                               Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
```

Gaps

```
A; Molecule type: mRNA
A; Reaidues: 1-476 <MUL.
A; Cross-references: UNIPROT: P09238; UNIPARC: UPI00000422C0; EMBL: X07820; NID: G36628; PIDN
A; Note: mRNA for this protein was detected in several human tumors
R; Windsor, L.J.; Grenett, H.; Birkedal-Hansen, B.; Bodden, M.K.; Engler, J.A.; Birkedal-
R; Windsor, L.Ges, 1734-17347, 1993
A; Title: Cell type-specific regulation of SL-1 and SL-2 genes. Induction of the SL-2 gen
A; Reference number: A47496; MUID: 93352520; PMID: 8349617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Accession: A47496
A;Molecule type: protein
A;Residues: 17-33 <WIN>
A;Cross-references: UNIPARC:UPI0000172CE4
C;Comment: This enzyme degrades various extracellular matrix proteins, including fibrone C;Genetics:
A;Gene: GDB:MMP10; STWY2
F;100-476/Product: stromelysin 2 #status predicted <MAT>
F;283-476/Domain: hemopexin repeat homology <PXN>
F;283-476/Domain: hemopexin repeat homology <PXN>
F;22,218,222,228/Binding site: zinc, catalytic (Cys, His, His, His) (inhibited) #status F;120/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;218,222,228/Binding site: zinc, catalytic (His) (active) #status predicted
F;219/Active site: Glu #status predicted
F;289-476/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               StroneLygin 2 (EC 3.4.24.22) precursor [validated] - human
NyAlternate names: matrix metalloproteinase 10 (MMP10); transin-2
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Accession: A28816; A47496
R;Muller, D.; Quantin, B.; Gesnel, M.C.; Millon-Collard, R.; Abecassis, J.; Breathnach, Bicchem. J. 253, 187-192, 1988
A;Title: The collagenase gene family in humans consists of at least four members.
A;Reference number: A90339; MUID:88339885; PMID:2844164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                         Query Match 57.9%; Score 66; DB 1; Length 476; Best Local Similarity 57.9%; Pred. No. 0.019; Matches 11; Conservative 2; Mismatches 6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          57.9%; Score 66; DB 1; Length 476; 57.9%; Pred. No. 0.019;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Search completed: February 21, 2006, 08:01:07 Job time : 30.5 secs
                                                                                                                                                                                                                                                                                                                                                                          90 PRCGVPDVGGFSTFPGSPK 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRCGVPDVGHPSSFPGMPK 107
                                                                                                                                                                                                                                                                                                                                           PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 57.5
Matches 11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
```

Canis familiaris (Dog).

SO

```
GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd.
                  Copyright
```

OM protein - protein search, using sw model

February 21, 2006, 18:31:04; Search time 190.5 Seconds (without alignments) 70.368 Million cell updates/sec Run on:

US-10-601-059-11 Title: Perfect score:

Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

17 Total number of hits satisfying chosen parameters: 2166443 segs, 705528306 residues Searched:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 100% Maximum Match 100%

Listing first 45 summaries

1: uniprot_sprot:*
2: uniprot_trembl:* UniProt_05.80:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Description	Q9nlt9 canis famil	Q4klf6 xenopus lae		.,	Q9nlp6 canis famil	Q6u7g9 meleagris g	Q5fvw8 xenopus tro	Q8uuz3 xenopus lae	P08253 homo sapien	QSiy21 tupaia glis	Q95ja4 sus scrofa	,14	_	P50757 oryctolagus	P33436 rattus norv	Q6gmm9 rattus norv	Q90611 gallus gall
	ID	Q9N1T9 CANFA	Q4KLF6 XENLA	Q7SYA5 XENLA	Q6GQ11_XENLA	Q9N1P6 CANFA	Q6U7G9 MELGA	Q5FVW8 XENTR	QBUUZ3 XENLA	MMP2 HUMAN	QSIYZ1 TUPGB	Q95JA4_PIG	O9GLES_BOVIN	MMP2 MOUSE	MMP2 RABIT	MMP2 RAT	QGGMM9 RAT	MMP2_CHICK
	DB	~	7	~	~	~	~	~	N	-	7	~	N	ч	Н	-	N	-
	Query Match Length DB	112	223	559	595	632	654	655	959	099	099	661	199	662	662	662	662	663
do	Query Match	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Score	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114
	Result No.	н	7	m	4	ß	9	7	æ	6	10	11	12	13	14	15	16	17

ALIGNMENTS

	PRT; 112 AA.	Created)	Last sequence update) Last annotation update)	(Fragment).
	Q9N1T9_CANFA_PRELIMINARY; 09N1T9;	(TrEMBLrel. 15,	(TremBLrel. 15, (TremBLrel. 26,	alloproteinase-2 ;
RESULT 1 Q9N1T9 CANFA			DT 01-OCT-2000 DT 01-MAR-2004	DE Matrix meta GN Name=MMP-2

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae; Xenopodinae; Xenopus; Xenopus; 13-SEP-2005 (TrEMBLrel. 31, Created)
13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
Hypothetical protein.
Kenopus laevis (African clawed frog). 223 AA. PRT; Q4KLF6_XENLA PRELIMINARY; Q4KLF6; NCBI_TaxID=8355;

PRCGNPDVANYNFFPRKPK 112 1 PRCGNPDVANYNFFPRKPK 19

94

셤 ሯ

TISSUE=Whole;
MEDLINE=22341132; PubMed=12454917; DOI=10.1002/dvdy.10174;
Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W.,
Richardson P.;
"Genetic and genomic tools for Xenopus research: The NIH Xenopus Dev. Dyn. 225:384-391 (2002). [1] NUCLEOTIDE SEQUENCE.

[2] NUCLEOTIDE SEQUENCE.

TISSUE-Whole,
MEDLINE=2238257; PubMed=12477932; DOI=10.1073/pnas.242603899;
MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
Strausberg R.D., Feingold E.A., Grouse L.H., Derge J.G., Stuller G.D.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Arbotchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Brownstein M.J., Ugdin T.B., Toshiyuki S., Carninci P., Prange C.,
Brownstein M.J., Ugdin T.B., Toshiyuki S., Carninci P., Prange C.,
Brownstein M.J., Nodin T.B., Toshiyuki S., Carninci P., Prange C.,
Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
Richards S., Worley C., Hale S., Garcia A.M., Gabbs R.A.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gabbs R.A.,
Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

us-10-601-059-11.rup

```
QGGQI1_XENLA PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUCLEOTIDE SEQUENCE.
       NUCLEOTIDE SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=Spleen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 4
         $\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Klauener R.D., Colling F.S., Wagner L.H., Derge J.G.,
Altauener R.D., Colling F.S., Wagner L., Sheamen C.M., Schuler G.D.,
Altechul S.P., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Altechul S.P., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Appkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heishe F.,
Stapleton M., Soares M.B., Bonaldo M.E., Carninci B.,
Brownstein M.J., Usdin T.B., Tochhyuki S., Carninci P., Frange C.,
A Brownstein M.J., Usdin T.B., Tochhyuki S., Carninci P., Frange C.,
A Raba S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Bosak S.A., McKernan R.J., Malek J.A., Gunazatne P.H.,
ARICHARGS S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Anting M., Madan A., Young A.C., Shovchenko Y., Bouffard G.G.,
Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
Ceneration and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.; "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Xenopus laevis (African clawed frog).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Amphibia, Batrachia, Anura, Mesobatrachia, Pipoidea, Pipidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=22341132; PubMed=12454917; DOI=10.1002/dvdy.10174;
Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W.,
Richardson P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Genetic and genomic tools for Xenopus research: The NIH Xenopus initiative.",
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 114; DB 2; Length 223; 100.0%; Pred. No. 2e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                          Klein S., Gerhard D.S.,
Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
EMBL, BC099241, AAH99241.1; -; mRNA.
                                                                                                                                                                                                                                                                                                                                   Hypothetical protein.
SEQUENCE 223 AA; 25889 MW; AB815A358ECD68F1 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-OCT-2003 (TrEMBLrel. 25, Last sequence update) 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       559 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRCGNPDVANYNFFPRKPK 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Xenopodinae; Xenopus; Xenopus.
                                                                                                                                                                                                                                                                                                                                                                                                                              100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Dev. Dyn. 225:384-391(2002).
[3]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-OCT-2003 (TrEMBLrel. 25, 01-OCT-2003 (TrEMBLrel. 25,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q7SYAS XENLA PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                  NUCLEOTIDE SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mmp2-prov protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDNA
                                                                                                                                                                                                                                         rissum=Whole;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE=Whole;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mouse
                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
       ઠે
```

```
**REDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
A Klauener R.L., Feingold E.A., Grouse L.H., Derge J.G.,
A Klauener R.D., Collins F.S., Wagner L., Shemenn C.M., Schuler G.D.,
A Altschul S.F., Zeeberg B., Buctow K.H., Schaefer C.F., Bhat N.K.,
A Altschul S.F., Zeeberg B., Buctow K.H., Schaefer C.F., Bhat N.K.,
A Blocknik R.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
A Brownstein M.J., Usdin T.B., Tonshiyuki S., Carninci P., Prange C.,
A Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
A Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
A Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
A Willing M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
A Blakealey R.W., Touchman J.W., Green E.D., Dickson M.C.,
A Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Amphibia, Batrachia, Anura, Mesobatrachia, Pipoidea, Pipidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 114; DB 2; Length 559; Pred. No. 5.3e-09; 0; Mismatches 0; Indels (
                                                                                                                                                  GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA. GO; GO:0004222; F:metalloendopeptidase activity; IEA. GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Klein S., Strausberg R.;
Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases
EMBL; BCO54947; AAHS4947.1; -; mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            595 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Xenopus laevis (African clawed frog).
                                                                                                                                                                                                                                     InterPro; IPR000562; FN_Type II.
InterPro; IPR000585; Hemopexin.
InterPro; IPR0006185; Peptidase.M.
InterPro; IPR001818; Pept MIOA MIZB.
InterPro; IPR006025; Pept_MZn_BS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                           Pfam; PP00040; fn2; 3.
Pfam; PP00045; Hemopexin; 2.
Pfam; PF00413; Peptidase_M10; 1.
Pfam; PF03933; Peptidase_M10_N; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96 PRCGNPDVANYNFFPRKPK 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Xenopodinae; Xenopus; Xenopus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 100.0%;
Matches 19; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mmp2-prov protein (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-JUL-2004 (TrEMBLrel. 27, 05-JUL-2004 (TrEMBLrel. 27, 05-JUL-2004 (TrEMBLrel. 27,
```

```
EMBL; AF177217; AAF67517.1; -; mRNA.
HSSP; P08253; 1GXD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRCGNPDVANYNFFPRKPK 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 100.0
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QGU7G9_MELGA PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUCLEOTIDE SEQUENCE.
                                                                             .003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 6
Q6U7G9_MELGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.; "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences."

Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Canis familiaris (Dog).
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Laurasiatheria, Carnivora, Pissipedia, Canidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE=Fibrosarcoma;
Jahic H., Paria B., Balkin R., Baxendale V., Fang Y., Kitchell B.;
Submitted (AUG-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                 MEDLINE=22341132; PubMed=12454917; DOI=10.1002/dvdy.10174;
Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W.,
Richardson P.;
                                                                                                                                                                                                                                                                                                                                                                                     "Genetic and genomic tools for Xenopus research: The NIH Xenopus initiative.";
Dev. Dyn. 225:384-391(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C TISSUE-Spleen;

Klein S., Strausberg R.;

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 595;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-0CT-2000 (TrEWBLrel. 15, Created)
01-0CT-2000 (TrEWBLrel. 15, Last sequence update)
01-MAR-2004 (TrEWBLrel. 26, Last annotation update)
Matrix metalloproteinase-2 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 114; DB 2;
100.0%; Pred. No. 5.7e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT; 632 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             96 PRCGNPDVANYNFFPRKPK 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q9N1P6 CANPA PRELIMINARY;
Q9N1P6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                   NUCLEOTIDE SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
tes 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9615;
                                                                                                                                                                                                                                                        TISSUE=Spleen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Name=MMP-2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CANFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Canis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09911P6

11D 0990

090 019

091 019

091 019

092 033

093 033

094 033

095 033

095 033

096 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

097 033

09
       RATARA RA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gelatinase A.
Meleagris gallopavo (Common turkey).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Archosauria, Aves, Neognathae, Galliformes, Phasianidae, Meleagris.
REROPS, MIO.003; -.

REROPS, MIO.003; -.

REPROPED, MIO.003; -.

RO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.

GO; GO:000522; F:metalloendopeptidase activity; IEA.

RO; GO:0006508; P:proteolysis and peptidolysis; IEA.

RICEPPO; IRRO00626; Peptidase MI.

RICEPPO; IRRO00626; Peptidase M.

RICEPPO; IRRO00626; Peptidase M.

RICEPPO; IRRO00625; Peptimase M.

RICEPPO; IRRO00625; Peptimase M.

RICEPPO; IRRO00625; Peptimase MIO, I.

REAM: PRO00401; Peptidase MIO, I.

REAM: PRO00401; PRO00401; Peptidase MIO, I.

REAM: PRO00495; RO; J.

REAM: ROSIS; ROSIS; ROSIS REAM: I.

REAM: SMOROS; ROSIS; ROSIS REAM: I.

REAM: SMOROS; ROSIS; ROSIS REAM: I.

REAM: SMOROS; ROSIS ROSIS REAM: I.

REAM: SMOROS; ROSIS REAM: I.

REPOSITE; PRO0021; REROMECTIN 2; J.

RECORTE; PRO0023; REROMECTIN 2; J.

RECORTE; PRO0024; HEMOPEXIN; I.

RECORTE; PRO0024; HEMOPEXIN; I.

RECORTE; PRO0024; HEMOPEXIN; I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R GO; GO:0005278; C:extracellular matrix (sensu Metazoa); IEA.

R GO; GO:0005278; C:metallocandopeptidase activity; IEA.

GO; GO:000508; P:proteolysis and peptidolysis; IEA.

InterPro; IPR000562; Feptidase.

InterPro; IPR000505; Hemopexin.

R InterPro; IPR001818; Peptidase.

R InterPro; IPR001818; Peptidase.

R Pfam; PF00401; PF00113; 3.

R Pfam; PF00415; Peptidase.

R Pfam; PF00415; Peptidase.

R Pfam; PF00413; Peptidase.

R Pfam; PF00413; Peptidase.

R Pfam; PF00413; PPTYPEII.

R PRINTS; PR0013; FNTYPEII.

R PRINTS; PR0013; FNTYPEII.

R PRODOSS; FN_TYPEII; 3.

R SWART; SW00120; FX; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 114; DB 2; Length 632; 100.0%; Pred. No. 6.1e-09; tive 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Monsonego Ornan E., Tong A.;
Submitted (AUG-2003) to the EMBL/GenBank/DDBJ databases.
EMBL; AY376899; AAQ98971.1; -; mRNA.
HSSP; P08254; 1B3D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE 632 AA; 70991 MW; D8AE895497E129F3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 654 AA
```

```
В
                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE-Whole body:

WEDINE-22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

Klausher R.D., Colling F.S., Wagner L., Shenmen C.M., Schuler G.D.,

Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Ehat N.K.,

Appkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

Brownstein M.J., Uddin T.B., Toshiyuki S., Carninci P., Prange C.,

Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Bosak S.A., McEwan P.J., McKernan K.J., Abramson R.D., Mullahy S.J.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

Rahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

Mhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,

Schnerch A., Schehul J.E., Jones S.J.M., Marra M.A.;

Schnerch A., Schent J. B., Jones S.J.M., Marra M.A.;

Richerticial Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,

Schnerch A., Schent J. B., Jones S.J.M., Marra M.A.;

Richerticial Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,

Rodriguez A.C., Grimwood J., Schutz Z. J., Myers R.M.,

Generation and initial analysis of more than 15,000 full-length human

Ri Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                     ö
                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                    Xenopus tropicalis (Western clawed frog) (Silurana tropicalis).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Amphibia, Batrachia, Anura, Mesobatrachia, Pipoidea, Pipidae,
                                                                                                                                     ö
                                                                                                       100.0%; Score 114; DB 2; Length 654; 100.0%; Pred. No. 6.3e-09; ive 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE-Whole body;
Klein S., Gerhard D.S.;
Klein S., Gerhard D.S.;
Submitted (FEB-2005) to the EMBL/GenBank/DDBJ databases.
EMBL, BC089734, AAHB9734.1; -; mRNA.
GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
GO; GO:000422; F:metalloendopeptidase activity; IEA.
GO; GO:0008270; F:zinc ion binding; IEA.
GO; GO:0005508; P:zinc ion binding; IEA.
SMART; SM00235; ZnMc; 1.
PROSITE; PS00546; CYSTEINE SWITCH; 1.
PROSITE; PS00023; FIBRONECTIN 2; 3.
PROSITE; PS00024; HEMOPEXIN; I.
PROSITE; PS00142; ZINC PROTEAGE; UNKNOWN 1.
SEQUENCE 654 AA; 73956 MW; F9B0755F76B6F8DD CRC64;
                                                                                                                                                                                                                                                                                            10-MAY-2005 (TrEMBLrel. 30, Created)
10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
                                                                                                                                                                                                                                                                    655 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR000562; FN type2 col bd.
InterPro; IPR000585; Hemopexin.
InterPro; IPR001818; Pept MIOA MI2B.
InterPro; IPR006025; Pept M ES.
InterPro; IPR006026; Pept M ES.
InterPro; IPR002477; PGBD 1.
                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                             PRCGNPDVANYNFFPRKPK 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PF00413; Peptidase M10; 1.
                                                                                                                                                                  1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                 Xenopodinae; Xenopus; Silurana.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PF00045: HemoDexin: 4.
                                                                                                                                                                                                                                                                 QSFVW8 XENTR PRELIMINARY;
QSFVW8;
                                                                                                Query Match
Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00040; fn2; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                        MGC108375 protein.
Name=MGC108375;
                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=8364;
                                                                                                                                                                                                                                                      XENTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pfam;
Pfam;
                                                                                                                                                                                                                                                     8
                                                                                                                                                                                             g
```

```
Gaps
                                                                                                                                               FADDUM; FRONDOSS; FN TYPE_II; 3.
SWART; SM00059; FN2; 3.
SWART; SM00059; FN2; 4.
SWART; SM00120; HN2; 4.
PROSITE; PS00023; ZMC; 1.
PROSITE; PS00023; FN2_1; 3.
PROSITE; PS00024; HEMOPEXIN; 1.
PROSITE; PS00042; ZNC_PROFEXIN; 1.
PROSITE; PS00042; HEMOPEXIN; 1.
SROSITE; PS00042; HEMOPEXIN; 1.
SROSITE; PS00424; HEMOPEXIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WEDLINE=21888509; PubMed=11891989; DOI=10.1002/dvdy.10069; Jung J.C., Leco K.J., Edwards D.R., Fini M.E.; "Matrix metalloproteinases mediate the dismantling of mesenchymal structures in the tadpole tail during thyroid hormone-induced tail
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Xenopus laevis (African clawed frog).
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata; Buteleostomi,
Amphibia; Batrachia, Anura, Mesobatrachia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEROPS; MICOUS; MEROPS; MICOUS; MEROPS; MICOPS; MICOPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Score 114; DB 2; Length 655; ; Pred. No. 6.3e-09; 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Leco K., Jung J.-C., Fini M., Edwards D.R.;
Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AY037943; AAL01591.1; -; mRNA.
HSSP; P08253; 1QIB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-WAR-2002 (TrEMBLrel. 20, Created)
01-WAR-2002 (TrEMBLrel. 20, Last sequence update)
01-WAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          656 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS00546; CYSTEINE SWITCH; 1. PROSITE; PS00023; FIBRONECTIN 2; 3. PROSITE; PS00024; HEMOPEXIN; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
Pfam, PF03933; Peptidase MIO_N; 1.
PRINTS; PR00013; FNTYPEII.
PRINTS; PR00139; MATRIXIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 95 PRCGNPDVANYNFFPRKPK 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRINTS; PR00013; FNTYPEII. –
PRINTS; PR00138; MATRIXIN.
PRODOM; PD000995; FN_TYPE_II; 3.
SMART; SM00059; FNZ; 3.
SMART; SM00120; HX; 4.
SMART; SM00235; ZnMc; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Xenopodinae; Xenopus; Xenopus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Dev. Dyn. 223:402-413(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 100.0
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 8
QBUUZ3 XENLA
LID QBUUZ3 XENLA PRELIMINARY;
AC QBUUZ3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matrix metalloproteinase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       resorption.";
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Name=MMP2; Synonyms=CLG4A;
Homo sapiens (Human).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Buarchontoglires; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=91236162; PubMed=1851724;
Collier I.E., Bruns G.A.P., Goldberg G.I., Gerhard D.S.;
On the structure and chromosome location of the 72- and 92-kDa human type IV collagenase genes.";
Genomics 9:429-434(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Livingston R.J., Rieder M.J., Chung M.-W., Ritchie T.K., Olson A.N., Nguyen C.P., Nguyen D.A., Poel C.L., Chambers S.W., Schackwitz W.S., Sherwood J.K., Sherwood A.M., Leithauser B.J., Nickerson D.A.; NIERS-SNPs, environmental gamome project, NIERS ES15478, Department of Genome Sciences, Seattle, WA (URL: http://egp.gs.washington.edu)."; Submitted (AUG-2004) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899; Straubberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Bosak S.A., McKewan P.J., McKernan K.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
                                                                                                                                                                                                                                                                                                                                                                  01-AUG-1988 (Rel. 08, Created)
01-FEB-1991 (Rel. 17, Last sequence update)
13-SEP-2005 (Rel. 48, Last annotation update)
72 kDa type IV collagenae precursor (EC 3.4.24, (72 kDa gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A) (TBE-
                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=88198218; PubMed=2834383;
Colliar I.E., Wilhelm S.M., Bisen A.Z., Marmer B.L., Grant G.A.,
Seltzer J.L., Kronberger A., He C., Bauer E.A., Goldberg G.I.;
"H-ras oncogene-transformed human bronchial epithelial cells (TBE-1)
secrete a single metalloprotease capable of degrading basement
membrane collagen.";
J. Biol. Chem. 263:6579-6587(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUCLECTIDE SEQUENCE [GENOMIC DNA], AND VARIANTS VAL-447 AND LEU-621
                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUCLEOTIDE SEQUENCE OF 19-660, AND PARTIAL PROTEIN SEQUENCE
                                                                                                                Indels
                                                                       Length
ZINC PROTEASE; UNKNOWN 1.; 74272 MW; 50C28A99C427F51D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIINE=90293047; PubMed=2162831;
Huhtala P., Chow L.T., Tryggvason K.;
"Structure of the human type IV collagenase gene.";
                                                                  Score 114; DB 2;
Pred. No. 6.3e-09;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                           660 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Biol. Chem. 265:11077-11082(1990).
                                                                                                                                                                                                                                                                                                                         PRT;
                                                                       100.0%; FIL
                                                                                                                                                                                                      PRCGNPDVANYNFFPRKPK 114
                                                                                                                                                             1 PRCGNPDVANYNFFPRKPK 19
                                                                     100.08;
                                                                                                              19; Conservative
                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              [3]
NUCLEOTIDE SEQUENCE.
                       656 AA;
                                                                                          Best Local Similarity
  PROSITE; PS00142;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                         MMP2 HUMAN
P08253;
                                                                                                                                                                                                        96
                       SEQUENCE
                                                                Query Match
                                                                                                                                                                                                                                                                           RESULT 9
MMP2 HUMAN
                                                                                                                Matches
                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                         HANDER BERNER BE
```

The Mark Strate Control

```
This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The C-terminal (haemopexin-like) domain structure of human gelatinase (MMP2): structural implications for its function.";

FEBS Lett. 378:126-130(1996).

-!- FUNCTION: In addition to gelatin and collagens, it cleaves KiSS1 at a Gly-|-Leu bond.

-!- CATALYTIC ACTIVITY: Cleavage of gelatin type I and collagen types IV, V, VI, X. Cleaves the collagen-like sequence Pro-Gln-Gly-|-COPACTOR: Binds 4 calcium ions per subunit.

-!- COPACTOR: Binds 2 zinc ions per subunit.

-!- COPACTOR: Binds 2 zinc ions per subunit.

-!- COPACTOR: Binds 1 inhibited by histatin-5).

-!- SUBUNIT: Ligand for integrin alpha-V/beta-3.

-!- TISSUE SPECIFICITY: Produced by normal skin fibroblasts.

-!- TISSUE SPECIFICITY: Produced by NMP14 (MT-MMP1) and MMP16 (MT-MMP1).
Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalaka U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J.M., Marza M.A., Schein J.E., Jones S.J.M., Marza M.A., Schein J.E., Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Completion of the primary structure of the human type IV collagenase preproenzyme and assignment of the gene (CLG4) to the q21 region of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROCESSING OF KISSI.
MEDILNE-22761370; PubMed-12879005; DOI=10.1038/sj.onc.1206542;
Takino T., Koshikawa N., Miyamori H., Tanaka M., Sasaki T., Okada Y.,
Seiki M., Sato H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       X-RAY CRYSTALLOGRAPHY (2.15 ANGSTROMS) OF 441-660.
MEDLINE-96069777; PubMed=7583664;
Libson A.M., Gittis A.G., Collier I.E., Marmer B.L., Goldberg G.I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=96140723; PubMed=8549817; DOI=10.1016/0014-5793(95)01435-7; Gohlke U., Gomis-Rueth F.-X., Crabbe T., Murphy G., Docherty A.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PubMed=11179305; DOI=10.1128/IAI.69.3.1402-1408.2001; Gusman H., Travis J., Helmerhorst E.J., Potempa J., Troxler R.F., Oppenheim P.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Salivary histatin 5 is an inhibitor of both host and bacterial enzymes implicated in periodonial disease."; Infect. Immun. 69:1402-1408(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Crystal structure of the haemopexin-like C-terminal domain of gelatinase \mathbf{A}...,
                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUCLEOTIDE SEQUENCE OF 1-51.
MEDLINE-90228972; PubMed-2158484;
Huhtala P., Eddy R.L., Fan Y.S., Byers M.G., Shows T.B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -i- SIMILARITY: Belongs to the peptidase M10A family.
-i- SIMILARITY: Contains 3 fibronectin type-II domains.
-i- SIMILARITY: Contains 1 hemopexin-like domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Cleavage of metastasis suppressor gene product KiSS-1
                                                                                                                                                                                                                                                                                                                       and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein/metastin by matrix metalloproteinases.";
Oncogene 22:4617-4626(2003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              X-RAY CRYSTALLOGRAPHY (2.6 ANGSTROMS) OF 458-660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Struct. Biol. 2:938-942(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; J03210; AAA35701.1; -; mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tryggvason K.; "Completion of the primary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genomics 6:554-559(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ENZYME REGULATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lattman E.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bode W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       removed
```

```
A NUCLECTION SEQUENCE.

RP NUCLECTION SEQUENCE.

RA Kenning M.S., Gentle A., McBrien N.A.;

Remaining M.S., Gentle A., McBrien N.A.;

Remaining M.S., Gentle A., McBrien N.A.;

RT "Expression and cDNA sequence of matrix metalloproteinase-2 (MMP-2) in mammalian model of human disease processes: Tupaia belangeri.";

RI DNA Seq. 15:332-337(2004).

BNA Seq. 15:332-337(2004).

CO; GO:00005276; F:extracellular matrix (sensu Metazoa); IEA.

BNA GO; GO:00005276; F:extracellular matrix (sensu Metazoa); IEA.

BNA InterPro; IPR001656; F:extracellular matrix (sensu Metazoa); IEA.

BNA InterPro; IPR001656; F:extracellular matrix (sensu Metazoa); IEA.

BNA Fam; PF00045; Hemopexin; 4.

BNA Fam; PF00045; Hemopexin; 4.

BNA Fam; PF00413; Peptidase_M10, 1.

BNA Fam; PF00413; Peptidase_M10, 1.

BNA Fam; PF00413; Peptidase_M10, 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R PRINTS; PRO0013; PRINTBEIL.

R PRINTS; PR00013; PRINTBEIL.

R PRODONS; FN TYPE II; 3.

R PRODONS; FN TYPE II; 3.

R SMART; SM00120; HX; 4.

SMART; SM00125; ZAMC; 1.

R PROSITE; PS00024; PROFILE SWITCH; 1.

R PROSITE; PS00024; HEMOPEXIN; 1.

R PROSITE; PS00044; PROFILESS; 1.

R PROSITE; PS00042; PROFILESS; 1.

R PROSITE; PS00044; ZINC PROFILESS; 1.

R PROSITE; PS00044; ZINC PROFILESS; 1.

R PROSITE; PS00044; ZINC PROFILESS; 1.
                                                                                                                                                                                                                                                                                                            10-MAY-2005 (TrEMBLrel. 30, Created)
10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
Matrix metalloproteinase 2.
Tupaia glis belangeri (Common tree shrew).
Tupaia glis belangeri (Common tree shrew).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Buarchontoglires; Scandentia; Tupaiidae; Tupaia.
NGI_TAXID=37347;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gelatinase A.
Name=MMP-2;
Sus scrofa (Pig).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Laurasiatheria; Cetartlodactyla; Suina; Suidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 114; DB 2; Length 660; 100.0%; Pred. No. 6.3e-09; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                               660 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100 PRCGNPDVANYNFFPRKPK 118
                1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 100.0%; Best Local Similarity 100.0%; Matches 19; Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-DEC-2001 (TrEMBLrel. 19, 01-DEC-2001 (TrEMBLrel. 19, 01-MAR-2004 (TrEMBLrel. 26,
                                                                                                                                                                                              RESULT 10
QSIY21 TUPGB
ID QSIY21_TUPGB PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 11
095JA4 PIG PRELIMINARY;
AC 095JA4;
                                                                                                                                                                                                                                                                                                                                         SAN THE PROPERTY OF THE PROPER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SMART; SM00235; ZnMc; 1.

PROSITE; PS00546; CYSTEINE_SMITCH; 1.

PROSITE; PS00023; FNZ_1; 3.

PROSITE; PS00024; HEMOPEXIN; 1.

PROSITE; PS01042; ZINC_PROTEASE; 1.

PROSITE; PS01142; ZINC_PROTEASE; 1.

Discreture; Calcium; Collagen degradation;

Direct protein sequencing; Extracellular matrix; Glycoprotein;

Hydrolase; Metal-binding; Metalloprotease; Polymorphism; Protease;

Repeat; Signal; Zinc; Zymogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 114; DB 1; Length 660; llarity 100.0%; Pred. No. 6.3e-09; Conservative 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Activation peptide.
72 kba type IV collagenase.
Pibronectin type-II 1.
Fibronectin type-II 2.
Fibronectin type-II 3.
Hemopexin-like.
Collagenase-like 1.
                                                                                                                                                                                                                                                                                                                                                                                                REMEL; MS5589; AAA52028.1; JOINED; GENOMIC_DNA.
REMEL; MS5590; AAA52028.1; JOINED; GENOMIC_DNA.
REMEL; MS5591; AAA52028.1; JOINED; GENOMIC_DNA.
REMEL; MS5591; AAA52028.1; JOINED; GENOMIC_DNA.
REMEL; MS5591; AAA52028.1; JOINED; GENOMIC_DNA.
REMEL; AX738117; AAU10089.1; -; GENOMIC_DNA.
REMEL; AX738117; AAH02576.1; -; MRNA.
REMER; AAH02576.1; AAH02576.1; -; AAH02576.1; AAH02576.1; AAH02576.1; AAH02576.1; AAH02576.1; AAH02576.1; AAH02576.1; AAH02576.1; AAH02576.1; AAH02676.1; AAH02676.
WBL, M33789; AAA52021.; -; Genomic_DNA.
WBL, M55593, AAA52028.1; -; Genomic_DNA.
WBL, M55592; AAA52028.1; -; Genomic_DNA.
WBL, M55582; AAA52028.1; JOINED; Genomic_DNA.
WBL, M55583; AAA52028.1; JOINED; Genomic_DNA.
WBL, M55584; AAA52028.1; JOINED; Genomic_DNA.
WBL, M55584; AAA52028.1; JOINED; Genomic_DNA.
WBL, M55586; AAA52028.1; JOINED; Genomic_DNA.
WBL, M55589; AAA52028.1; JOINED; Genomic_DNA.
WBL, M55589; AAA52028.1; JOINED; Genomic_DNA.
WBL, M55599; AAA52028.1; JOINED; Genomic_DNA.
WBL, M55591; AAA52058.1; JOINED; Genomic_DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Potential.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
DOMAIN
DOMAIN
REGION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL
            EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHAIN
```

ö

ö

Gaps

```
PRT;
   InterPro; IPR006025; Pept_M_Zn_BS.
Pfam; PF00040; fn2; 3.
Pfam; PF00045; Hemopexin; 4.
                                                                               Pfam; PF00413; Peptidase M10; 1.
Pfam; PF03933; Peptidase M10 N; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         101 PRCGNPDVANYNFFPRKPK 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mouse cDNA sequences.";
                                                                                                                                                                                                                                                                                                                                                                                                                                          Metalloprotease; Protease.
SEQUENCE 661 AA; 73776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 100.0
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MMP2_MOUSE
P33434;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Name=Mmp2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MMP2_MOUSE
         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Yan L., Zhang B., Tsang P., Fang J., Yu Y., Ingher D.E., Moses M.A.; Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.

EMBL, AF290428; AAG28169.1; -; mRNA.

HASP, P0823; 1cM.

MEROPS; M10.003; -.

GO, GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.

GO, GO:000422; F:metalloendopeptidase activity; IEA.

GO, GO:0006508; P:proteolyais and peptidolysis; IEA.

InterPro; IPR000562; FN Type II.

InterPro; IPR000562; Hemopexi.

InterPro; IPR000562; Hemopexi.

InterPro; IPR001818; Pept_M10A_M12B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
Pecora; Bovidae; Bovinae; Bos.
                                                                                                                 TISSUE=Tooth enamel organ;
MEDILINE=21480581; PubMed=11597028;
Caron C., Xue J., Sum X., Simmer J.P., Bartlett J.D.;
"Gelatinase A (MMP-2) in developing tooth tissues and amelogenin
                                                                                                                                                                                                                                                     R MENDE, AF295805; AAK97133.1; -; mRNA.

R MESP; POR223; IGAC.

R MESP; POR223; IGAC.

R MESP; POR223; IGAC.

R GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.

GO; GO:000422; F:metalloendopeptidase activity; IEA.

R GO; GO:0006508; P:proteolysis and peptidolysis; IEA.

R InterPro; IPR000562; Peptidase II.

R InterPro; IPR000626; Peptidase II.

R InterPro; IPR001818; Pept MIDA.

R InterPro; IPR001818; Pept MIDA.

R Pfam; PF00040; MIL2 3.

R Pfam; PF00045; Hemopexin; 4.

R Pfam; PF000413; Peptidase MID; 1.

R Pfam; PF000413; Peptidase MID; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 114; DB 2; Length 661; 100.0%; Pred. No. 6.3e-09; tive 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SWART; SM00120; HX; 4.
SWART; SM00125; ZnMc; 1.
PROSITE; PS00024; PIBRONECTIN 2; 3.
PROSITE; PS00024; HEMOPEXIN, 1.
PROSITE; PS00142; ZINC PROTEASE; UNKNOWN 1.
PROSITE; PS00142; ZINC PROTEASE; UNKNOWN 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ol-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
MATIX metalloprotease 2.
Bos taurus (Bovine).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRINTS; PRO0013; FNTYPRIT.
PRINTS; PR0138; MATRIXIN.
ProDom; PD000995; FN Type II; 3.
SMART; SM00059; FN2; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      101 PRCGNPDVANYNFFPRKPK 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q9GLES BOVIN PRELIMINARY;
Q9GLES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity 100.
19; Conservative
                                                                                     NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUCLEOTIDE SEQUENCE.
                           NCBI_TaxID=9823;
                                                                                                                                                                                                                                      hydrolysis.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 12
09GLB5 BOV
10 00GLB5 BOV
00GLB5 BOV
01 -M
01 01 -M
01 01 -M
02 BOS
0C BOS
0C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
SO OR DE REAL 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
```

```
STRAIN=CSTBL/6; TISSUB=Brain,

WEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

A Straubberg R.L., Feingold R.A., Grouse L.H., Derge J.G.,

Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A phytins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsich F.,

A phytins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsich F.,

A phatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

B tapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Schetz T.E.,

B Rownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

R Raha S.S., Loquellano N.A., Peters G.J., Abrameon R.D., Mullahy S.J.,

B Bosak-S.A., McEwan P.J., McKertan K.J., Malek J.A., Gibbs R.A.,

R Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

A Nilalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

R Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

Mhiting M., Madan A., Young A.C., Shevchenko Y., Boulfard G.G.,

B Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

B Noticylez A.C., Grimwood J., Schmutz J., Myers R.M.,

B Lutterfield Y.S.N., Krzywinski M.I., Skalaka U., Smailus D.E.,

B Cherration and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
Muroidea; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUCLECTIDE SEQUENCE.

MEDLINE-92218452; PubMed=1373140;

Reponen P., Sahlberg C., Huhtala P., Hurskainen T., Thesleff I., Iryggvason K.;

Iryggvason K.;

Molecular cloning of murine 72-kDa type IV collagenase and its expression during mouse development.";

J. Blol. Chem. 267:7856-7862(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-FEB-1994 (Rel. 28, Created)
01-FEB-1994 (Rel. 28, Last sequence update)
13-SEP-2005 (Rel. 48, Last annotation update)
72 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 661;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                              661 AA; 73776 MW; 90545F7645E5F84D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 114; DB 2; 100.0%; Pred. No. 6.3e-09;
PRINTS; PR0013; FNTYBEII.

PRINTS; PR0013; MATRIXIN.

ProDon; PD000995; FN_Type_II; 3.

SWART; SW00120; HX, 4.

SWART; SW00235; ZnMc; 1.

PROSITE; PS00024; FIBRONECTIN 2; 3.

PROSITE; PS00024; HEMOPEXIN; I.

PROSITE; PS00024; HEMOPEXIN; I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          662 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
```

```
204
208
208
209
211
211
407
407
413
                                                                                                                                                                                                                                                                                                                                                                                                                   523
                                                                                                                                                                                                                                                                                                                                                                                                                                                          571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MMP2 RABIT
P50757;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 14
MMP2_RABIT
                    METAL
                                                                             METAL
                                                                                                                    METAL
                                                                                                                                                                             METAL
                                                                                                                                                                                                                                                        METAL
                                                                                                                                                                                                                                                                               METAL
                                                                                                                                                                                                                                                                                               METAL
                                                                                                                                                                                                                                                                                                                                      METAL
                                                                                                                                                                                                                                                                                                                                                                            METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                          METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              METAL
                                                                                                                                                                                                                   METAL
                                                                                                                                                                                                                                                                                                                                                                                                                   METAL
                                                                                                                                          METAL
                                                                                                                                                                                                                                                                                                                     WETAL
                                                             KETAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SITE
  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઢ
                                                                                       Permeter C.A., Adler R.R., Rappolee D.A., Pedersen R.A., Werb Z.,
The function of the first and first 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Glycoprotein;
Repeat; Signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Activation peptide.
72 kDa type IV collagenase.
Fibronectin type-II 1.
Fibronectin type-II 2.
Fibronectin type-II 3.
Hemopexin-like.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Collagenase-like 1.
Collagenase-like 2.
Collagenase-like 2.
By similarity.
Calcium 1 (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00142; ZINC_PROTEASE; 1.
Calcium; Collagen degradation; Extracellular matrix;
Hydrolase; Metal-binding; Metalloprotease; Protease;
Zinc; Zymogen. 1 29 Potential.
PROPEP 30 109 Activation peptide.
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; M84334; AAA39338.1; -; mRNA.

EMBL; BC070430; AA470430.1; -; mRNA.

PIR; AA4246; AA4246.

HSSP; P08223; IRTG.

MEROPS; M10.003; -.

Ensembl; ENSWIGSG0000031740; Mus musculus.

MGI: MGI: 97009; Mmp2.

GO; GO:0005615; C:extracellular space; TAS.

INTEFPO; IPR000562; FN type2 col_bd.

INTEFPO; IPR000585; Hemopexin.

INTEFPO; IPR000585; Hemopexin.

INTEFPO; IPR0006025; Pept M Zn BS.

INTEFPO; IPR006025; Pept M Zn BS.

INTEFPO; IPR006025; Pept M Zn BS.

INTEFPO; IPR006025; Pept M Zn BS.

Pfam; PF00445; Hemopexin; 4.

Pfam; PF00445; Pemopexin; 4.

PFMNTS; PR0013; PRYPEII.

PRINTS; PR0013; PNYPEII.

PROMPT; SM00059; PN TYPE II; 3.

SMART; SM00125; HX; 4.

SMART; SM00235; ZnMC; 1.

PROSITE; PS00023; FNZ 1; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE; PS51092; FNZ_2; 3. PROSITE; PS00024; HEMOPEXIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29
662
276
2334
3394
662
662
8662
134
134
                                      DEVELOPMENTAL STAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30
2228
2286
3344
468
1110
2222
222
397
404
                                                                             PubMed=2744464;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGION
ACT_SITE
METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHAIN
```

```
MEDINE=96283805; PubMed=8679695; DOI=10.1016/0167-4781(96)00050-4; MEDINE=96283805; PubMed=8679695; DOI=10.1016/0167-4781(96)00050-4; MEDINE=96283805; PubMed=8679695; DOI=10.1016/0167-4781(96)00050-4; MEDINE=96283805; PubMed=8679695; DOI=10.1016/0167-4781(96)00050-4; Medicallar cloning of rabbit matrix metalloproteinase-2 and its broad repression at several tissues."; Biochim. Biophys. Acta 1307:137-139(1996).

10 CATALYTIC ACTYVITY: Cleaves the collagen-like sequence Pro-Gln-Gly-1.

11e-Ala-Gly-Gln.

11e-Ala-Gln.

11e-Ala-Gly-Gln.

11e-Ala-Gln.

11e-Ala-Gly-Gln.

11e-Ala-Gly-Gln.

11e-Ala-Gly-Gln.

11e-Ala-Gly-Gln.

11e-Ala-Gly-Gln.

11e-Ala-Gly-Gln.

11e-Ala-Gly-Gln.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryotā, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;
Mammalia, Eutheria, Euarchontoglires, Glires, Lagomorpha, Leporidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                       Calcium 2 (By similarity).

Zinc 1 (By similarity).

Calcium 3 (By similarity).

Calcium 1 (By similarity).

Calcium 3 (By similarity).

Zinc 2 (catalytic) (By similarity).

Calcium 4 (via carbonyl oxygen) (By similarity).
                             Zinc 1 (By similarity).
Zinc 1 (By similarity).
Calcium 3 (By similarity).
Calcium 3 (yia carbonyl oxygen) (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-linked (GlcNAc. . .) (Potential). N-linked (GlcNAc. . .) (Potential).
                                                                                                                                                                                                                                                                                                                     similarity).
Calcium 2 (via carbonyl oxygen) (By
similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         similarity).
Calcium 4 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     similarity).
Calcium 4 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                   Calcium 2 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Calcium 4 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
13-SEP-2005 (Rel. 48, Last amotation update)
72 kba type IV collagenase precursor (EC 3.4.24.24) (72 kba gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; Score 114; DB 1; Length 662;
; Pred. No. 6.4e-09;
0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cysteine Switch (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C630A7DBDB272F02 CRC64;
Calcium 2 (By similarity)
                                                                                                                                                                                                                                         Zinc 1 (By similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         662 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Oryctolagus cuniculus (Rabbit)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             74102 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 19; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
168
178
180
185
186
                                                                                                                                                                                                                                                                                                                                                                                                                                                204
206
208
208
209
211
403
407
413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             662 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI TaxID=9986;
```

```
Name≃Mmp2;
                                                                CARBOHYD
DISULFID
SEQUENCE
                                                                                                                                                                                               100
                                                    CARBOHYD
                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               removed
              METAL
                                                                                                                                Best Loc
Matches
                                       SITE
                                                                                                                                                                                                                                     RESULT 15
  Ettttts
                                                                                                                                                                                             용
                                                                                                                                                                                                                                                                  à
                                               This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                                                                                                           R InterPro; IPR000562; FW type2 col bd.

R InterPro; IPR000562; Hemopexin.

R InterPro; IPR000562; Hemopexin.

R InterPro; IPR006025; Pept MIOA M12B.

R InterPro; IPR006025; Pept MIOA M12B.

R InterPro; IPR006025; Pept MIOA M12B.

R InterPro; IPR006015; Pept MIOA M12B.

R Pfam; PP000413; Peptidase_M10, 1.

R Pfam; PF001319; Peptidase_M10, 1.

R RINTS; PR00013; FNTYPEII.

R RINTS; PR00013; FNTYPEII.

R RART; SM000295; FNZ Type_II; 3.

R MART; SM000295; FNZ Type_II; 3.

R MART; SM00120; HX; 4.

R MART; SM00120; HX; 4.

R MART; SM00120; FNZ 1.

R PROSITE; PS00024; HEMOPEXIN, 1.

R PROSITE; PS00142; FNZ 1.

R PROSITE; PS00142; ENZ 1.

R PROSITE; PS00144; ENZ 1.

R PROSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Calcium 2 (By similarity).

Zinc 1 (By similarity).

Zancium 3 (By similarity).

Calcium 1 (By similarity).

Calcium 3 (By similarity).

Zinc 2 (catalytic) (By similarity).

Calcium 4 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Calcium 4 (via carbonyl oxygen) (By
similarity).
Calcium 4 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 By similarity.
Calcium 1 (By similarity).
Calcium 2 (By similarity).
Zinc 1 (By similarity).
Zinc 1 (By similarity).
Calcium 3 (By similarity).
Calcium 3 (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Zinc 1 (By similarity).
Calcium 2 (via carbonyl oxygen)
similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Calcium 2 (via carbonyl oxygen)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Activation peptide.
72 kDa type IV collagenase.
Fibronectin type-II 1.
Fibronectin type-II 2.
Fibronectin type-II 3.
Hemopexin-like.
SIMILARITY: Belongs to the peptidase M10A family. SIMILARITY: Contains 3 fibronectin type-II domains. SIMILARITY: Contains 1 hemopexin-like domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Collagenase-like 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Collagen-binding.
Collagenase-like 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          similarity).
                                                                                                                            EMBL; D61579; BAA09796.1; -; mRNA.
PIR; S70365; S70365.
HSSP; P08253; 1Q1B.
MEROPS; M10.003; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       204
206
208
208
201
211
403
407
413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1110
2228
2286
2286
2222
2222
2222
2394
1138
1138
1148
1188
1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     204
206
208
208
211
211
403
413
478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zinc; Zymogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGION
REGION
ACT SITE
METAL
                                                                                                      removed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
DOMAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            METAL
METAL
METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      METAL
METAL
METAL
METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WETAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WETAL
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rattus norvegicus (Rat).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Buarchontoglires; Glires; Rodentia; Sciurognathi;
Muroidea; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                 Gaps
                                 BIMILALIFY.
Cysteine switch (Potential).
N-linked (GlCNAc. . ) (Potential).
N-linked (GlCNAc. . ) (Potential).
Calcium 4 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                WMP2 RAT STANDARD; PRT; 662 AA.
P33436; P97581;
01-FEB-1994 (Rel. 28, Last sequence update)
01-FEB-2005 (Rel. 48, Last sequence update)
72 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            [1]
WUCLEOTIDE SEQUENCE.
MUCLEOTIDE SEQUENCE.
MEALINE=93249363; PubMed=7916617;
MARTÍ H.P., McNeil L., Davies M., Martín J., Lovett D.H.;
Martí H.P., mcNeil L., Davies M., Martín J., Lovett D.H.;
"Homology cloning of rat 72 kDa type IV collagenase: cytokine a second-messenger inducibility in glomerular mesangial cells.";
Biochem. J. 291:441-446(1993).
                                                                                                                                                                                                                                              ö
                                                                                                                                                                                           100.0%; Score 114; DB 1; Length 662; 100.0%; Pred. No. 6.4e-09; tive 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -!- SIMILARITY: Belongs to the peptidase M10A family.
-!- SIMILARITY: Contains 3 fibronectin type-II domains.
-!- SIMILARITY: Contains 1 hemopexin-like domain.
                                                                                                                     By similarity.
1CC246B270E440C8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RGD; 621316; Mmp2.
GO; GO:0004228; F:gelatinase A activity; IDA.
GO; GO:0008237; F:metallopeptidase activity; TAS.
                    Bimilarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; X71466; CAA50583.1; -; mRNA.
EMBL; U65656; AAB41692.1; -; mRNA.
                                                                                                                                                                                                                                                                                                                        PRCGNPDVANYNPPPRKPK 118
                                                                                                                                                                                                                                                                                               1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                   662 B
                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PIR; S34780; S34780.
HSSP; P08253; 1RTG.
MEROPS; M10.003; -.
                                                                                                                     471 6
662 AA;
                                                                                                                                                                                                               Local Similarity
nes 19; Conserv
```

```
8
                                                              셤
                                                                                                             R SWART; SM00595; FN. Type_II; 3.

R SWART; SM00129; FN2; 3.

R SWART; SM00125; ZnMc; 1.

R PROSITE; PS00546; CYSTEINE SWITCH; 1.

R PROSITE; PS00023; FN2_2; 3.

R PROSITE; PS00024; HEWOPEXIN; 1.

R PROSITE; PS00142; ENS_C STATE SWITCH; 1.

R PROSITE; PS00142; FN2_2; 3.

R PROSITE; PS00142; ENS_C STATE SWITCH; 1.

R STATE; STATE SWITCH; 1.

R STATE; SWITCH; 1.

PROPER 30 109 Activation peptide.
                                                                                                                                                                                                                                                                                                                                       By similarity.
Calcium 1 (By similarity).
Calcium 2 (By similarity).
Zinc 1 (By similarity).
Zinc 1 (By similarity).
Calcium 3 (By similarity).
Calcium 3 (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                              similarity).
Calcium 2 (via carbonyl oxygen) (By similarity).
Calcium 2 (By similarity).
Calcium 3 (By similarity).
Calcium 1 (By similarity).
Calcium 1 (By similarity).
Calcium 3 (By similarity).
Calcium 3 (By similarity).
Zinc 2 (catalytic) (By similarity).
Calcium 4 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                            similarity).
Zinc 1 (By similarity).
Calcium 2 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Calcium 4 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        similarity).
Calcium 4 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cysteine switch (Potential).
N-linked (GlcNAc. .) (Potential).
N-linked (GlcNAc. .) (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (via carbonyl oxygen)
                                                                                                                                                                                                                                              Activation peptide.
72 Nba type IV collagenase.
Fibronectin type-II 1.
Fibronectin type-II 2.
Fibronectin type-II 3.
Hemopexin-like.
Collagenase-like 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7496B34B0A21884B CRC64;
                                                                                                                                                                                                                                                                                                                    Collagen-binding.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      By similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                            Bimilarity)
InterPro; IPR000562; FN_type2_col_bd.
InterPro; IPR000595; Hemopexin.
InterPro; IPR001818; Pept_MIOA_MI2B.
InterPro; IPR006025; Pept_M Zn_BS.
InterPro; IPR006026; Peptidase_M.
Pfam; PP00040; fn2; 3.
Pfam; PP00041; Hemopexin; 4.
Pfam; PP00943; Peptidase_MIO; 1.
Pfam; PR093933; Peptidase_MIO; 1.
PRINTS; PR00013; Peptidase_MIO, 1.
PRINTS; PR00013; PRYTYPEIT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Calcium 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 369 N
435 H
586 A
74182 MW;
                                                                                                                                                                                                                                     29
662
662
276
662
3334
662
221
221
134
168
1180
1185
1186
                                                                                                                                                                                                                                                                                                                                                                                                                       193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         204
206
208
209
211
211
403
413
413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        102
575
644
662
786
                                                                                                                                                                                                                                                                                                                                                                                                                                                      202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       102
575
644
471
42
86
369
435
586
586
                                                                                                                                                                                                                                                                                                                                        404
134
168
178
180
185
                                                                                                                                                                                                                                                                                                                                                                                                                      193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        204
206
208
209
211
211
403
413
413
                                                                                                                                                                                                                                                                                                                                                                                                                                                      202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   620
                                                                                                                                                                                                                                                       CHAIN
DOMAIN
DOMAIN
DOMAIN
DOMAIN
REGION
REGION
REGION
REGION
METAL
METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
DISULFID
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                          METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                     METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                METAL
METAL
METAL
                                                                                                                                                                                                                                                                                                                                                                                                                       METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    METAL
                                                                                                                                                                                                                                                                                                                                                                                 METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                  METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TETAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (ETAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SITE
```

```
MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Altachul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Altschul S.F., Jordan H., Moore T., Max S.L., Rang J., Habt N.K.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
Brownstein M.J., Usdin T.B., Toshiyuki S., Carninoi P., Prange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
Richards S., Worlley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
Mhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.,
and mouse CDNA sequences ";
                                         ö
                                                                                                                                                                                                                                                                                                                                                          Rattus norvegicus (Rat).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Buarchontoglires; Glires; Rodentia; Sciurognathi;
Muroidea; Muridae; Murinae; Rattus.
                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NIH WGC Project;

Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.

R Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.

EMBL, BCO14013; AAH74013.1; -; mRNA.

GO; GO:0006578; C:extracellular matrix (sensu Metazoa); IEA.

R GO; GO:00062278; F:metalloendopeptidase activity; IEA.

GO; GO:0006208; P:zinc ion binding; IEA.

R InterPro; IPR000562; F:metalloendopeptidase activity; IEA.

R InterPro; IPR000562; F:metalloendopexin.

R InterPro; IPR000562; F:metalloendopexin.

R InterPro; IPR000562; Pept M.O.A.

R InterPro; IPR006025; Pept M.O.A.

R Pfam; PF00041; Peptidase—M.

R Pfam; PF00041; Peptidase—M.

R Pfam; PR00043; Peptidase—M.

R PRINTS; PR000139; MATRIXIN.

R SMART; SM00025; FRX; 1.

R SMART; SM00025; ENX; 4.

R PROSITE; PS000129; FNX; 4.

R PROSITE; PS00023; FNZ; 1.

R PROSITE; PS00023; FNZ; 1.
                                         ö
Query Match 100.0%; Score 114; DB 1; Length 662; Best Local Similarity 100.0%; Pred. No. 6.4e-09; Matches 19; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                        05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         roc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                     662 AA
                                                                                                                                                                                                                       PRT;
                                                                                                       100 PRCGNPDVANYNFFPRKPK 118
                                                                                1 PRCGNPDVANYNFPPRKPK 19
                                                                                                                                                                                                                     QEGMM9_RAT PRELIMINARY;
QEGMM9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                      Mmp2 protein.
Name=Mmp2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rissum=Lung;
                                                                                                                                                                              RESULT 16
Q6GMM9_RAT
```

```
DOMAIN
                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  METAL
                                                                                                                                                                                                                                                                                                                                                                                                                             METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          METAL
METAL
METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                     METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                         WETAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SITE
  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROTEIN SEQUENCE OF 27-41 AND 107-122.

MEDLINE=91161603; PubMed=1848240;
ACAD J.-M., Almes R.T., Ward G.R., Youngleib G.L., Quigley J.P.;
Chen J.-M., Almes R.T., Ward G.R., Youngleib G.L., Quigley J.P.;
Chen J.-M., Almes R.T., Ward G.R., Youngleib G.L., Quigley J.P.;
Chen J. Bolation and characterization of a 70-kDa metalloprotease

(T. 1801ation and characterization of a 70-kDa metalloprotease

(T. 1801ations) that is elevated in Rous sarcoma virus-transformed

(T. 1901ations) that is elevated in Rous sarcoma virus-transformed

(T. 10-kDr. Chem. 266:5113-5121(1991).
CHEM. ACTIVITY: Cleaves the collagen-like sequence Pro-Gln-Gly-]-
CHEM. COPACTOR: Binds 4 calcium ions per subunit (By similarity).
CHEM. COPACTOR: Binds 2 zinc ions per subunit (By similarity).
CHEM. The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-MMP1).
CHEM. The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-MMP1).
CHEM. The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-MMP17Y: Belongs to the peptidase M10A family.
CHEM. SIMILARITY: Bolangs to the peptidase M10A family.
CHEM. SIMILARITY: Contains 1 hemopexin-like domain.
                                                                                                    ö
                                                                                                                                                                                                                                                                                                                     Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                      Aimes R.T., French D.L., Quigley J.P.; "Cloning of a 72 kDa matrix metalloproteinase (gelatinase) from chicken embryo fibolasts using gene family PCR: expression of the gelatinase increase upon malignant transformation."; Biochem. J. 300:729-736(1994).
         PROSITE; PS00024; HEMOPEXIN; 1.
PROSITE; PS01042; ZINC PROTEASE; 1.
Calcium; Hydrolase; Metal-binding; Metalloprocease; Protease; Zinc. SEQUENCE 662 AA; 74149 MW; C56BD787473FC03E CRC64;
                                                                                                                                                                                                                              01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
13-SEP-2005 (Rel. 48, Last annotation update)
72 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A)
                                                                                                    ö
                                                                          Length 662;
                                                                                                   0; Indels
                                                                         100.0%; Score 114; DB 2;
100.0%; Pred. No. 6.4e-09;
cive 0; Mismatches 0;
                                                                                                                                                                                                                    663 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HSSP; P08253; 1QIB.
MEROPS; M10.003; --
Ensembl; BRSQALGG0000003580; Gallus gallus.
InterPro; IPR000562; FN type2_col_bd.
InterPro; IPR000585; Hemopexin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; U07775; AAA19596.1; -; mRNA.
PIR; S46492; S46492.
                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=94280397; PubMed=8010954;
                                                                                                                                        PRCGNPDVANYNFFPRKPK 118
                                                                                                                            PRCGNPDVANYNFFPRKPK 19
                                                          Query Match
Best Local Similarity 100....
Best 19, Conservative
PS51092; FN2 2; 3.
                                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                   NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE=Embryo;
                                                                                                                                                                                                                    CHICK
                                                                                                                                                     100
PROSITE;
                                                                                                                                                                                                                   MMP2 CHI
Q90611;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    removed
                                                                                                                                                                                                                                                                                                                                                              Gallus
                                                                                                                                                                                         RESULT 17
MMP2_CHICK
SKRRR
                                                                                                                             8
                                                                                                                                                   셤
```

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      calcium 2 (By similarity).

Zinc 1 (By similarity).

Calcium 3 (By similarity).

Calcium 1 (By similarity).

Calcium 2 (Catalytic) (By similarity).

Zinc 4 (via carbonyl oxygen) (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hemopexin-like.

Collagenase-like 1.

Collagenase-like 2.

Collagenase-like 2.

By similarity.

Calcium 1 (By similarity).

Calcium 2 (By similarity).

Zinc 1 (By similarity).

Zinc 1 (By similarity).

Calcium 3 (By similarity).

Calcium 3 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                            FIGURES FROUSES FOR TAXAMONDES FROUSES FROUSE FROUSE FROUSE FR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (B)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Calcium 4 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           similarity).
Zinc 1 (By similarity).
Calcium 2 (via carbonyl oxygen)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Calcium 4 (via carbonyl oxygen)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 114; DB 1; Length 663;
Pred. No. 6.4e-09;
Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   similarity).
Cysteine switch (Potential)
By similarity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Activation peptide.
72 KDa type IV collagenase.
Fibronectin type-II 1.
Fibronectin type-II 3.
Fibronectin type-II 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Y - 0 (in Ref. 2).
W -> T (in Ref. 2).
T -> I (in Ref. 2).
BD6FDA4E67C3EBCA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 similarity).
Calcium 2 (vi
similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bimilarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           similarity)
InterPro; IPR001818; Pept MIOA MI2B.
InterPro; IPR006025; Pept M Zn BS.
InterPro; IPR006026; Pept M Zn BS.
InterPro; IPR006026; Pept Idase M.
Pfam; PP00040; fn2; 3.
Pfam; PP00045; Hemopexin; 4.
Pfam; PP0393; Peptidase MIO; 1.
PRIMTS; PR00013; PNTYPEII.
PRINTS; PR00138; MATRIXIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         74941 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
ilarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001
2003
2005
2008
2008
4400
4410
473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  122 1
663 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protease; Repeat;
SIGNAL 1
PROPEP 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              341
1107
2394
3394
1131
1177
1182
1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  201
203
203
205
206
400
410
410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
REGION
REGION
REGION
ACT SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
CONFLICT
CONFLICT
CONFLICT
SEQUENCE
```

PRCGNPDVANYNFFPRKPK 19

97 PRCGNPDVANYNFFPRKPK 115

Search completed: February 21, 2006, 18:42:03 Job time : 191.5 secs

GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd. Copyright

OM protein - protein search, using sw model

February 21, 2006, 17:57:40 ë ë Run

; Search time 192 Seconds (without alignments) 43.480 Million cell updates/sec

US-10-601-059-11 ritle:

1 PRCGNPDVANYNFFPRKPK 19 Perfect score: Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

2443163 seqs, 439378781 residues Searched:

54 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 100% Maximum Match 100% Listing first 500 summaries

A Geneseq 21:* Database

geneseqp2003as;* geneseqp2003bs;* geneseqp2004s;* geneseqp2005s;* geneseqp2000s:* geneseqp2001s:* geneseqp2002s:* geneseqp1980s:* geneseqp1990s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	Abp97133 Human mat	Abg76319 Human mat	Adq17094 Human mat	Adv68475 Human mat	Aay07359 Matrix me	Abp97137 Human mat	Abg76323 Partial s	Add17098 Human mat	Adv68479 Human mat	Abp97124 Human mat	Abg76310 Human mat	Adq17085 Human mat		Aam30829 Peptide #		Abg40146 Human pep	Novel	Adf59546 Human pol	Aea90447 Human lun	Abg24001 Novel hum	Abm84057 Human dia	Aap96143 Sequence		Aar07969 Complete
SUMMARIES	ΠD	ABP97133	ABG76319	ADQ17094	ADV68475	AAY07359	ABP97137	ABG76323	ADQ17098	ADV68479	ABP97124	ABG76310	ADQ17085	ADV68466	AAM30829	ABB22666	ABG40146	AEA20074	ADF59546	AEA90447	ABG24001	ABM84057	AAP96143	AAP91139	AAR07969
	DB	9	9	œ	σ	~	ø	ø	œ	σ	9	9	æ	σ	4	4	S	Φ	-	σ	4	8	-	н	7
	Query Match Length DB	19	19	13	19	23	43	43	43	43	44	44	44	44	75	75	75	194	445	462	468	623	631	631	631
d	Query Match	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Score	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114
	Result No.	-	7	e	4	<u>ا</u>	9	7	80	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Human typ Human mat Human mat	Mouse Human Type I		Protein M Human tum Human mat Human mat	Human Human Human Human Protea		Human co Novel hu
Aay07350 Aaw41226 Adm48668		0 m H m	Aau84348 Abu54445 Abp97136 Aao16608	Add18578 Adp65244 Adn07697 Adq17097 Adv90301		Adf 60554 Aea20970 Abg 23999
AAY07350 AAW41226 ADM48668	ADT05996 ADT05997 AAB20490 AAR06420	AAB84607 AAE10431 ABB79413 ABB90738	AAU84348 ABU54445 ABP97136 AAO16608	ADD18522 ADD18578 ADN07697 ADQ17097 ADV90301	ADV604/0 ADD662857 ADD46270 AAW41111 ADT05976	ADF60554 ADF60554 AEA20970 ABG23999
4410	0 00 44 00	4470	տաաա	· · · · · · · · · · · · · · · · · · ·	v L L U 80 a	0 1 0 4
631 631 631	633 644 660	099	00000	000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	708 708 1330
0.000	100.0	100.0	000000		000000	8888
444	1114	11111111111111111111111111111111111111	4 4 4 4 4 4	* * * * * * * * * * * * * * * * * * *	* * * * * * *	11111
75 72 72 73 74	29 30 31	3 8 8 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0) 	4 4 4 4 C R	523.22

ALIGNMENTS

RESULT 1 ABP97133

Š ABP97133 standard; peptide; 19

ABP97133;

(first entry) 24-JUN-2003 Human matrix metalloproteinase 2 cleavage region peptide SEQ ID NO:11.

Human; matrix metalloproteinase; MMP; anticancer; wound healing; matrix metalloproteinase inhibitor; antitumour; antiangiogenic; cardiant; vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic; vulnerary; cerebroprotective; antidiabetic; ophthalmological; tumour; dermatological; metastatic; non-metastatic; vascularised; heart disease; non-vascularised; surgical incision; chronic wound; stroke; angiogenesis; macular degeneration; diabetic retinopathy; cleavage region.

Homo sapiens

WO2003018748-A2.

06-MAR-2003

15-AUG-2002; 2002WO-US026319.

16-AUG-2001; 2001US-0312726P. 21-DEC-2001; 2001US-00032376. 21-MAY-2002; 2002US-00153185.

(KIMB) KIMBERLY-CLARK WORLDWIDE INC.

Weart IF; Quirk S,

WPI; 2003-381408/36.

Anti-angiogenic composition comprising peptide inhibitor of matrix metalloproteinase, useful for decreasing the expression of vascular

N

```
The present invention describes an anti-angiogenic composition (I) for inhibiting expression of vascular endothelial growth factor (VEGF). (I) composities an effective amount of a peptide inhibitor of matrix metalloproteinase (MMP), where the peptide can inhibit the expression of VEGF. (I) has cytostatic, vulnerary, cardiant, cerebroprotective, antidabetic, ophthalmological and dermatological activities. (I) can be used for inhibiting expression of VEGF, and so can be used for inhibiting crowth of tumours and diminishing tumours size. The tumour can be metastatic, non-metastatic, vascularised, non-vascularised, hard or soft. (I) is also useful for treating injuries including wounds, surgical incisions, chronic wounds, heart diseases and stroke. (I) is also useful for treating disperie retinopathy. The present sequence represents a human MMP cleavage rection peptide, which is used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2; cleavage region; proenzyme form; cellular proliferation; fibroblast; keratinocyte; healthy skin development; wound healing; scarring; skin tone; wrinkle; anti-aging; vulnerary.
endothelial growth factor and treating cancers and tissue injuries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel peptide inhibitor of proteinase activity of matrix metalloproteinases, e.g. matrix metalloproteinase-2, useful for stimulating cellular proliferation of fibroblasts or keratinocytes.
                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                           Length 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human matrix metalloproteinase (MMP) peptide inhibitor #11.
                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 114; DB 6; 100.0%; Pred. No. 9.8e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (KIMB ) KIMBERLY-CLARK WORLDWIDE INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Quirk S, Malik S, Villanueva JM;
                                Claim 17; Page 45; 103pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABG76319 standard; peptide; 19 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 44; 120pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LS-AUG-2002; 2002WO-US026198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-289980/28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO2003016520-A1.
                                                                                                                                                                                                                                                                                                                                                        Sequence 19 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       27-FEB-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABG76319;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABG76319
ઠ
```

The present invention relates to peptide inhibitors of metalloproteinases (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have peptide sequences related to the cleavage regions of the proenzyme forms

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention provides peptides and compositions containing such peptides that are useful as agents to maintain healthy skin and to promote the condition of the skin. The invention is useful for increasing the amount of fibronectin in tissue. The invention is also useful for encouraging the maintenance and development of healthy skin, preventing and treating wrinkles and for treating wounds. The invention acts as vulnerary and dermatological agents. The present sequence is human matrix metalloproteinase (WMP) cleavage region peptide. This sequence is used in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Composition used for preventing and treating wrinkles and treating wounds comprises peptide having sequence related to matrix metalloproteinase
of the MMPS. The peptide inhibitors are useful for stimulating cellular proliferation of fibroblasts or keratinocytes, promoting healthy skin development, treating wounds, preventing scarring, improving skin tone, reducing wrinkling and for simulating the development of smooth, healthy skin. The peptide inhibitors are useful as anti-aging and wound healing compounds. ABG76309-ABG76321 represent peptide inhibitors of MMPs
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fibronectin; healthy skin; wrinkle; wound; vulnerary; dermatological; human; matrix metalloproteinase; MMP.
                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                Human matrix metalloproteinase-2 (MMP2) cleavage region peptide #2.
                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                 Length 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 114; DB 8; Length 19; 100.0%; Pred. No. 9.8e-11;
                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                 Score 114; DB 6;
Pred. No. 9.8e-11;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 11; SEQ ID NO 11; 60pp; English.
                                                                                                                                                                                                                                                                                                                                ADQ17094 standard; peptide; 19 AA
                                                                                                                                                                                                                   1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                      1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-DEC-2002; 2002US-00335207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-DEC-2002; 2002US-00335207
                                                                                                                               Query Match
Query Match
Best Local Similarity luv...
Best Local 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2004-506456/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
Matches 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US2004127421-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (MALI/) MALIK S.
(QUIR/) QUIRK S.
                                                                                                                    Sequence 19 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 19 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                               23-SEP-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                proenzyme
                                                                                                                                                                                                                                                                                                                                                                 ADQ17094;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Malik
                                                                                                                                                                                                                                                                                                  RESULT 3
                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                8888888
                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
```

antibody;

(first entry)

(revised)

enzyme;

```
This peptide represents a matrix metalloprotease (MMP) inhibitor peptide by activated MMPs, e.g. for treating inappropriate angiogenesis, arthritis, tumour growth, invasion and metastasis and granulomatous inflammatory conditions such as sarcoidosis. Antibodies to the peptides can be used to detect the MMPs and can distinguish activated from latent enzyme. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PR field.)
                                                                                                                                                                                                                                   Matrix metalloprotease; inhibitor; tissue damage; angiogenesis; arthritis; tumour growth; granulomatous inflammatory condition; metastasis; sarcoidosis.
                                                                                                                                                                                      Matrix metalloprotease inhibitor peptide #23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matrix metallo:proteinase peptide(s) - us
tissue damage caused by activated enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 1; Page 15; 61pp; English.
AAY07359 standard; peptide; 23 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (USDC ) US SEC OF COMMERCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (USSH ) NAT INST OF HEALTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1990-290458/38.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAR-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-MAR-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-FEB-1990;
                                                                                                       25-MAR-2003
16-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                      WO9010228-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-SEP-1990.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Liotta LA,
                                                                                                                                                                                                                                                                                                                                                      Synthetic.
                                                     AAY07359;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT
        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       chondrosarcoma cells comprising an amount of a peptide and a pharmaceutical carrier. The invention may be useful for the production of pharmaceutical carrier. The invention may be useful for the production of compounds with a cytostatic activity acting as metalloprocease 1 inhibitors, metalloprocease 3 inhibitors, metalloprocease 4 inhibitors, metalloprocease 5 inhibitors, metalloprocease 6 inhibitors, metalloprocease 7 inhibitors, metalloprocease 9 inhibitors, metalloprocease 10 inhibitors, metalloprocease 11 inhibitors, metalloprocease 12 inhibitors, metalloprocease 12 inhibitors, metalloprocease 13 inhibitors or metalloprocease 12 inhibitors, cells which is the decreasing and inhibiting the growth of chondrosarcoma cells which in turn inhibits growth of a bone tumor or diminishes a size of a bone tumor, useful for treating chondrosarcoma cancers. The present sequence is that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A composition for decreasing and inhibiting the growth of chondrosarcoma cells, useful for treating chondrosarcomas and bone cancer, comprises a matrix metalloproteinase inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        peptide derived from a human matrix metalloproteinase which may be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   invention relates to a novel composition for inhibiting growth of
                                                                                                                                                                                                                                                                                        cell growth; pharmaceutical; cytostatic; metalloprotease 1 inhibitor; metalloprotease 2 inhibitor; metalloprotease 3 inhibitor; metalloprotease 4 inhibitor; metalloprotease 5 inhibitor; metalloprotease 6 inhibitor; metalloprotease 7 inhibitor; metalloprotease 8 inhibitor; metalloprotease 9 inhibitor; metalloprotease 10 inhibitor; metalloprotease 11 inhibitor; metalloprotease 12 inhibitor; metalloprotease 11 inhibitor;
                                                                                                                                                                                                                                   Human matrix metalloproteinase-2 cleavage region polypeptide SeqID11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               during the development of a composition of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 114; DB 9; Length 1:
100.0%; Pred. No. 9.8e-11;
ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  metalloprotease inhibitor; bone tumor; sarcoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 16; SEQ ID NO 11; 50pp; English.
                                                                           ADV68475 standard; peptide; 19 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-JUN-2003; 2003US-00601059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-JUN-2003; 2003US-00601059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2005-047374/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 fang S, Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (YANG/) YANG S.
(QUIR/) QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2004259802-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 19 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                   10-MAR-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-DEC-2004.
                                                                                                                                 ADV68475;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of a jumped
                   ADV68475

JOANG8475

JOANG84

JOANG84
```

- used to inhibit enzyme in treating

Stetlerste W, Krutzsh H;

89US-00317407

90US-00488460 89US-00317407

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                               Human; matrix metalloproteinase; MMP; anticancer; wound healing; matrix metalloproteinase inhibitor; antitumour; antiangiogenic; cardiant; vascular endothelial growth factor inhibitor; VBGF inhibitor; Oytostatic; vulnerary; cerebroprotective; antidiabetic; ophthalmological; tumour; dermatological; metagtatic; non-metagetatic; vascularised; heart disease; non-vascularised; surgical incision; chronic wound; stroke; angiogenesis;
                                                                             Gaps
                                                                             ö
                                      Length 23;
                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                            Human matrix metalloproteinase 2 peptide SEQ ID NO:15.
                                  100.0%; Score 114; DB 2;
100.0%; Pred. No. 1.2e-10;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                            ABP97137 standard; peptide; 43 AA.
                                                                                                                                             PRCGNPDVANYNFFPRKPK 23
                                                                                                                    1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                       24-JUN-2003 (first entry)
                                                     Best Local Similarity 100
Matches 19; Conservative
Sequence 23 AA;
                                                                                                                                                                                                                                                                                                ABP97137;
                                      Query Match
```

ö

Gaps ö

> PRCGNPDVANYNFFPRKPK 19 PRCGNPDVANYNFFPRKPK 19

ð 셤 RESULT

us-10-601-059-11.rag

```
The present invention relates to peptide inhibitors of metalloproteinases (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have epptide sequences related to the cleavage regions of the proenzyme forms of the MMPS. The peptide inhibitors are useful for stimulating cellular proliferation of fibroblasts or keratinocytes, promoting healthy skin development, treating wounds, preventing scarring, improving skin tone, reducing wrinkling and for simulating the development of smooth, healthy skin. The peptide inhibitors are useful as anti-aging and wound healing compounds. The present sequence represents a partial sequence of human
                                                                                                                                                                                                                                                                                                                                               Novel peptide inhibitor of proteinase activity of matrix metalloproteinases, e.g. matrix metalloproteinase-2, useful for stimulating cellular proliferation of fibroblasts or keratinocytes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Match 100.0%; Score 114; DB 6; Length 43; Local Similarity 100.0%; Pred. No. 2.4e-10; les 19; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                     (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                        Villanueva JM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 27; 120pp; English
                                                                              16-AUG-2001; 2001US-0312726P
                                                                                                       21-DEC-2001; 2001US-00032376
21-MAY-2002; 2002US-00153185
                           L5-AUG-2002; 2002WO-US026198
                                                                                                                                                                                                                                                                                          WPI; 2003-289980/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2004-506456/48.
                                                                                                                                                                                                                                          Malik S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (MALI/) MALIK S.
(QUIR/) QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 43 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US2004127421-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23-SEP-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADQ17098;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Malik S,
                                                                                                                                                                                                                                          Quirk S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 8
  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention describes an anti-angiogenic composition (I) for inhibiting expression of vascular endothelial growth factor (VEGF). (I) comprises an effective amount of a peptide inhibitor of matrix metalloproceinase (WMP), where the peptide an inhibit the expression of WEGF. (I) has eytostatic, vulnerary, cardiant, crebroprotective, antidiabetic, ophthalmological and dermaclogical activities. (I) can be used for inhibiting expression of WEGF, and so can be used for inhibiting growth of tumours and diminishing tumours size. The tumour can be metastatic, non-metastatic, vascularised, hard or soft. (I) is also useful for treating injuries including wounds, surgical incisions, chronic wounds, heart diseases and stroke. (I) is also useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    for treating disorders characterised by excessive angiogenesis e.g. macular degeneration and diabetic retinopathy. The present sequence represents a human MMP peptide, which is used in the exemplification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2; cleavage region; proenzyme form; cellular proliferation; fibroblast; keratinocyte; healthy skin development; wound healthy skin development; skin tone; wrinkle; anti-aging; vulnerary.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Anti-angiogenic composition comprising peptide inhibitor of matrix metalloproteinase, useful for decreasing the expression of vascular endothelial growth factor and treating cancers and tissue injuries.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Partial sequence from human matrix metalloproteinase-2 (MMP-2).
macular degeneration; diabetic retinopathy; cleavage region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 114; DB 6; Length 43; 100.0%; Pred. No. 2.4e-10; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                        (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 26; 103pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABG76323 standard; protein; 43 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                              16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                                                                                                                                              15-AUG-2002; 2002WO-US026319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-381408/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                Quirk S, Weart IF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                       WO2003018748-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2003016520-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 43 AA;
                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                         06-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABG76323;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABG76323
```

ö

Сарв

ö

```
Composition used for preventing and treating wrinkles and treating wounds comprises peptide having sequence related to matrix metalloproteinase
                                                                                                                                                                   Fibronectin, healthy skin, wrinkle; wound, vulnerary, dermatological, human; matrix metalloproteinase; MMP.
                                                                                                                                               Human matrix metalloproteinase-2 (MMP2) wound site peptide.
                                                                              Ź
           PRCGNPDVANYNFFPRKPK 42
1 PRCGNPDVANYNFFPRKPK 19
                                                                           ADQ17098 standard; peptide; 43
                                                                                                                                                                                                                                                                         30-DEC-2002; 2002US-00335207.
                                                                                                                                                                                                                                                                                              30-DEC-2002; 2002US-00335207.
                                                                                                                        (first entry)
```

27-FEB-2003

BXXXXXXXXXXXXXXXXXX

ઠે 음

```
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-MAR-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABP97124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Quirk S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABP97124
      8888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                               The present invention provides peptides and compositions containing such peptides that are useful as agents to maintain healthy skin and to promote the condition of the skin. The invention is useful for increasing the amount of fibronectin in tissue. The invention is also useful for encouraging the maintenance and development of healthy skin, preventing and treating wrinkles and for treating wounds. The invention acts as vulnerary and dermatological agents. The present sequence is human matrix metalloproteinase (MMP) wound site peptide. This sequence is used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A composition for decreasing and inhibiting the growth of chondrosarcoma cells, useful for treating chondrosarcomas and bone cancer, comprises a matrix metalloproteinase inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This invention relates to a novel composition for inhibiting growth of chondrosarcoma cells comprising an amount of a peptide and a pharmaceutical carrier. The invention may be useful for the production compounds with a cytostatic activity acting as metalloprotease 1 inhibitors, metalloprotease 2 inhibitors, metalloprotease 3 inhibitors, metalloprotease 4 inhibitors, metalloprotease 5 inhibitors,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cell growth; pharmaceutical; cytostatic; metalloprotease 1 inhibitor; metalloprotease 2 inhibitor; metalloprotease 3 inhibitor; metalloprotease 4 inhibitor; metalloprotease 5 inhibitor; metalloprotease 6 inhibitor; metalloprotease 7 inhibitor; metalloprotease 8 inhibitor; metalloprotease 9 inhibitor; metalloprotease 10 inhibitor; metalloprotease 11 inhibitor; metalloprotease 12 inhibitor; metalloprotease 13 inhibitor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human matrix metalloproteinase-2 polypeptide SeqID15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 114; DB 8;
100.0%; Pred. No. 2.4e-10;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    metalloprotease inhibitor; bone tumor; sarcoma.
                                                         Disclosure; SEQ ID NO 15; 60pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; SEQ ID NO 15; 50pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADV68479 standard; protein; 43 AA
                                                                                                                                                                                                                                                                                                                                                                 exemplification of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24 PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-JUN-2003; 2003US-00601059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-JUN-2003; 2003US-00601059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2005-047374/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
nes 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Yang S, Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (QUIR/) QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2004259802-A1
                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 43 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (YANG/) YANG S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-DEC-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-MAR-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADV68479;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADV68479

XX
 AC
 ADV6
 XX
 ADV6
 XX
 ADV6
 XX
 ADV6
 XX
 ADV6
 ADV6
 XX
 ADV6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 9
# X & X C C C C C C C C X & X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
```

ઠે

ð

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; matrix metalloproteinase; MMP; anticancer; wound healing; matrix metalloproteinase inhibitor; antitumour; antiangiogenic; cardiant; vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic; vulnerary; cerebroprotective; antidiabetic; ophthalmological; tumour; dermatological; metaetatic; non-metastatic; vascularised; heart disease; non-vascularised; surgical incision; chronic wound; stroke; angiogenesis; macular degeneration; diabetic retinopathy; cleavage region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention describes an anti-angiogenic composition (I) for inhibiting expression of vascular endothelial growth factor (VEGF). (I) comprises an effective amount of a peptide inhibitor of matrix metalloproteinase (WMP), where the peptide inhibit the expression of VEGF. (I) has cytostatic, vulnerary, cardiant, cerebroprotective, antidiabetic, ophthalmological and dermatological activities. (I) can be used for inhibiting expression of VEGF, and so can be used for inhibiting growth of tumours and diminishing tumours size. The tumour can be metastatic, non-metastatic, vascularised, non-vascularised, hard or soft.
metalloprotease 6 inhibitors, metalloprotease 7 inhibitors, metalloprotease 9 inhibitors, metalloprotease 9 inhibitors, metalloprotease 11 inhibitors, metalloprotease 11 inhibitors, metalloprotease 11 inhibitors, metalloprotease 11 inhibitors or metalloprotease inhibitors. The composition is useful for decreasing and inhibiting the growth of chondrosarcoma cells which in turn inhibits growth of a bone tumor or diminishes a size of a bone tumor, useful for treating chondrosarcomas and bone cancers. The present sequence is that is a peptide derived from a human matrix metalloproteinase which may be used during the development of a composition of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human matrix metalloproteinase 2 cleavage region peptide SEQ ID NO:2.
                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Anti-angiogenic composition comprising peptide inhibitor of matrix metalloproteinase, useful for decreasing the expression of vascular endothelial growth factor and treating cancers and tissue injuries.
                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                        100.0%; Score 114; DB 9;
100.0%; Pred. No. 2.4e-10;
                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABP97124 standard; peptide; 44 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 17; Page 15; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                                    .
                                                                                                                                                                                                                                                                                                                                                                                                                         1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-AUG-2002; 2002WO-US026319.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2003-381408/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO2003018748-A2
                                                                                                                                                                                                                                                                        Sequence 43 AA;
```

1 PRCGNPDVANYNFFPRKPK 19

```
8
                       셤
                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention relates to peptide inhibitors of metalloproteinases (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have peptide sequences related to the cleavage regions of the proenzyme forms of the MMPS. The peptide inhibitors are useful for stimulating cellular proliferation of fibroblasts or keratinocytes, promoting healthy skin development, treating wounds, preventing scarring, improving skin tone, reducing wrinkling and for simulating the development of smooth, healthy skin. The peptide inhibitors are useful as anti-aging and wound healing compounds. ABG76309-ABG76321 represent peptide inhibitors of MMPs
           incisions, chronic wounds, heart diseases and stroke. (I) is also useful for treating disorders characterised by excessive angiogenesis e.g. macular degeneration and diabetic retinopathy. The present sequence represents a human MMP cleavage region peptide, which is used in the exemplification of the present invention
                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                           Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2; cleavage region; procazyme form; cellular proliferation; fibroblast; keratinocyte; healthy skin development; wound healing; scarring; skin tone; wrinkle; anti-aging; vulnerary.
 surgical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel peptide inhibitor of proteinase activity of matrix metalloproteinases, e.g. matrix metalloproteinase-2, useful for stimulating cellular proliferation of fibroblasts or keratinocytes.
                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 44;
                                                                                                                      Length 44;
for treating injuries including wounds,
                                                                                                                                                                                                                                                                                                                                                 Human matrix metalloproteinase (MMP) peptide inhibitor #2.
                                                                                                                                               Indels
                                                                                                                   100.0%; Score 114; DB 6;
100.0%; Pred. No. 2.5e-10;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 114; DB 6;
100.0%; Pred. No. 2.5e-10;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                                    ABG76310 standard; protein; 44 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Quirk S, Malik S, Villanueva JM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 16; 120pp; English.
                                                                                                                                                                                        PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                          1 PRCGNPDVANYNPPPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            L5-AUG-2002; 2002WO-US026198.
                                                                                                    Query Match
Best Local Similarity 100....
Best Annual 19, Conservative
                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 100.
Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-289980/28
is also useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO2003016520-A1.
                                                                                            Sequence 44 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 44 AA;
                                                                                                                                                                                                                                                                                                                        10-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-FEB-2003.
                                                                                                                                                                                                   24
                                                                                                                                                                                                                                                                                               ABG76310;
                                                                                                                                                                                                                                          RESULT 11
                                                                                                                                                                                                                                                        ABG76310
8888888888
                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                    δ
```

```
The present invention provides peptides and compositions containing such peptides that are useful as agents to maintain healthy skin and to promote the condition of the skin. The invention is useful for increasing the amount of fibronectin in tissue. The invention is also useful for encouraging the maintenance and development of healthy skin, preventing and treating wrinkles and for treating wounds. The invention acts as vulnerary and dermatological agents. The present sequence is human matrix metalloproteinase (MMP) cleavage region peptide. This sequence is used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Composition used for preventing and treating wrinkles and treating wounds comprises peptide having sequence related to matrix metalloproteinase
                                                                                                                                                                                                                                                                                                                                     Fibronectin; healthy skin; wrinkle; wound; vulnerary; dermatological;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cell growth; pharmaceutical; cytostatic; metalloprotease 1 inhibitor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              metalloproteinase-2 cleavage region polypeptide SeqID2.
                                                                                                                                                                                                                                                                                       Human matrix metalloproteinase-2 (MMP2) cleavage region peptide #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 114; DB 8;
100.0%; Pred. No. 2.5e-10;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 1; SEQ ID NO 2; 60pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the exemplification of the invention
                                                                                                                                                                                                                                                                                                                                                              human; matrix metalloproteinase; MMP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ź
                                                                                                                                           ADQ17085 standard; peptide; 44 AA
24 PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADV68466 standard; protein; 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-DEC-2002; 2002US-00335207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-DEC-2002; 2002US-00335207
                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2004-506456/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (MALI/) MALIK S.
(QUIR/) QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2004127421-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 44 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human matrix
                                                                                                                                                                                                                                         23-SEP-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-MAR-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         proenzyme
                                                                                                                                                                                         ADQ17085;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Malik S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADV68466;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
```

ö

Gaps

ô

Indels

us-10-601-059-11.rag

```
Human genome-derived single exon nucleic acid probes useful for analyzing gene expression in human placenta.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention relates to single exon nucleic acid probes (SENP: see AA131315-AA157546). The present sequence is a peptide encoded by one such probe. The probes are useful for producing a microarray for predicting, measuring and displaying gene expression in samples derived from human placenta. The probes are useful for antenatal diagnosis of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Protein #4665 encoded by probe for measuring heart cell gene expression.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human, gene expression, heart, microarray, vascular system,
cardiovascular disease, hypertension, cardiac arrhythmia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 114; DB 4;
100.0%; Pred. No. 4.5e-10;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 27; SEQ ID NO 31098; 654pp; English.
                                                                                                                                                                                                                                                                                                                                                                     Chen W, Rank DR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABB22666 standard; protein; 75 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRCGNPDVANYNFFPRKPK 67
                                                                                                                                                                                                                                                                                                                           (MOLE-) MOLECULAR DYNAMICS INC
                                                                                                                                                                     2000US-0207456P.
2000US-00608408.
2000US-00632366.
2000US-0234687P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0180312P.
2000US-0207456P.
2000US-0060850B.
2000US-00632366.
2000US-0234687P.
2000US-0234687P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001WO-US000666
                                                                                                                                                                                                                                                                                 04-OCT-2000; 2000GB-00024263
                                                                                                            30-JAN-2001; 2001WO-US000663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 100...
Local 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-JAN-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         congenital heart disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      human genetic disorders
                                                                                                                                                                                                                                                                                                                                                                     Hanzel DK,
                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-488897/53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 75 AA;
                            WO200157272-A2
                                                                                                                                                                     26-MAY-2000;
30-JUN-2000;
03-AUG-2000;
21-SEP-2000;
27-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-AUG-2000;
21-SEP-2000;
27-SEP-2000;
04-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-MAY-2000;
                                                                                                                                                        04-FEB-2000;
                                                                    09-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABB22666;
                                                                                                                                                                                                                                                                                                                                                                     Penn SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABB22666
           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This invention relates to a novel composition for inhibiting growth of chondrosarcoma cells comprising an amount of a peptide and a pharmaceutical carrier. The invention may be useful for the production of compounds with a cytostatic ectivity acting as metalloprotease 1 inhibitors, metalloprotease 2 inhibitors, metalloprotease 3 inhibitors, metalloprotease 6 inhibitors, metalloprotease 5 inhibitors, metalloprotease 6 inhibitors, metalloprotease 9 inhibitors, metalloprotease 10 inhibitors, metalloprotease 11 inhibitors, metalloprotease 11 inhibitors or metalloprotease 12 inhibitors, metalloprotease 13 inhibitors or metalloprotease 12 inhibitors or the composition is useful for decreasing and inhibiting the growth of chondrosarcoma cells which in turn inhibits growth of a bone tumor or diminishes a size of a bone tumor, useful for the treating chondrosarcoma cancers. The present sequence is that the treating chondrosarcoma cancers. The present sequence is that the treating chondrosarcoma cancers. The present sequence is that the treating chondrosarcoma cancers. The present sequence is that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A composition for decreasing and inhibiting the growth of chondrosarcoma cells, useful for treating chondrosarcomas and bone cancer, comprises a matrix metalloproteinase inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 of a peptide derived from a human matrix metalloproteinase which may be used during the development of a composition of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Peptide #4866 encoded by probe for measuring placental gene expression.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
metalloprotease 2 inhibitor; metalloprotease 3 inhibitor; metalloprotease 4 inhibitor; metalloprotease 5 inhibitor; metalloprotease 5 inhibitor; metalloprotease 7 inhibitor; metalloprotease 7 inhibitor; metalloprotease 9 inhibitor; metalloprotease 10 inhibitor; metalloprotease 11 inhibitor; metalloprotease 11 inhibitor; metalloprotease 12 inhibitor; metalloprotease 13 inhibitor; metalloprotease inhibitor; bone tumor; sarcoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 114; DB 9; Length 44; 100.0%; Pred. No. 2.5e-10; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Probe; microarray; human; placenta; antenatal diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 16; SEQ ID NO 2; 50pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAM30829 standard; protein; 75 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                     20-JUN-2003; 2003US-00601059
                                                                                                                                                                                                                                                                                                                                               20-JUN-2003; 2003US-00601059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2005-047374/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best_Local Similarity
Matches 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              genetic disorder
                                                                                                                                                                                                                                                                                                                                                                                     (YANG/) YANG S.
(QUIR/) QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 44 AA;
                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-OCT-2001
                                                                                                                                                                                                                                                             23-DEC-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAM30829;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                         fang S,
```

ઠે 셤

ö

Gaps

ö

Indels

Length 75;

Rank DR;

Chen W,

Hanzel DK,

Penn SG,

WPI; 2002-114183/15

```
The present invention relates to single exon nucleic acid probes for measuring human gene expression in a sample derived from human heart (see ABA21515-ABA41305). The present sequence is a protein encoded by one such probe. The probes may be used for predicting, measuring and displaying gene expression in samples derived from the human heart via microarrays. By measuring gene expression, the probes are useful for predicting, diagnosing, grading, staging, monitoring and prognosing diseases of the human heart and vascular system e.g. cardiovascular disease. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO
                                                                                                                                              Single exon nucleic acid probes for analyzing gene expression in human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                            Claim 15; SEQ ID NO 24436; 530pp; English
                                                               Rank DR;
                     (MOLE-) MOLECULAR DYNAMICS INC
                                                               Chen W,
                                                             Penn SG, Hanzel DK,
                                                                                                  WPI; 2001-488899/53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 75 AA;
                                                                                                                                                                       hearts
X4X1X8X11X8X2X2X2X2X2X
```

100.0%; Score 114; DB 4; Length 75; 0; Indels 4.5e-10; 0; Mismatches Pred. No. PRCGNPDVANYNFFPRKPK 67 1 PRCGNPDVANYNFFPRKPK 19 100.0%; 19; Conservative Best Local Similarity Query Match 49 Matches 셤 8

ö

Gaps

ö

Human peptide encoded by genome-derived single exon probe SEQ ID 29811. ABG40146 standard; peptide; 75 AA 19-AUG-2002 (first entry) ABG40146; ABG4014

Human; single exon probe; asthma; lung cancer; COPD; ILD; chronic obstructive pulmonary disease; interstitial lung disease; familial idiopathic pulmonary fibrosis; neurofibromatosis; tuberous sclerosis; gaucher's disease; Miemann-Pick disease; Hermansky-budlak syndrome; sarcoidosis; pulmonary histiocytosis; lymphangioleiomyomtosis; Karagener syndrome; pulmonary alveolar proteinosis; fibrocystic pulmonary dysplasia; primary ciliary dyskinesis; puimonary hypertension; hyaline membrane disease.

WO200186003-A2 Homo sapiens

15-NOV-2001

30-JAN-2001; 2001WO-US000665

2000US-00632366 2000US-0234687P 30-JUN-2000; 2000US-00608408 04-FEB-2000; 26-MAY-2000; 03-AUG-2000 21-SEP-2000 (MOLE-) MOLECULAR DYNAMICS INC

04-OCT-2000; 2000GB-00024263.

2000US-0236359P

27-SEP-2000

The invention relates for a spatially-addressable set of single expunctor, concluded are adjusted expression in a sample derived from human lung comprising single exon nucleic acid probes having one of 12614 nucleic acid sequences mentioned in the specification, one of 12614 nucleic acid sequences mentioned in the specification, or their complements or the 12819 open reading frames derived from the 12614 probes which hybridises at high stringency to a nucleic acid expressed in the human lung; measuring gene expression in a sample derived from human lung; comprising (a) contexting the array with a collection of detectably labeled nucleic acids derived from human lung; comprising (a) contexting the array with a collection of detectably labeled nucleic acids derived from human lung or array; identifying exons in a elekaryotic genome, comprising (a) algorithmically predicting at least one exon from genomic sequences of algorithmically predicting at least one exon from genomic sequences of the extraction of array identifying exons in a elekaryote lung mRNA, to a single exon probe, above and (b) measuring the expression of each of the exons in several comprising (a) identifying exons from genomic sequence by the method comprising of in the above mentioned microarray; assigning exons to a single exon microarrays having a probe with the exon, where a common pattern of expression of the exons should be assigned to a single gene; a peptide comprising on the town of the exons should be assigned to a single gene; a peptide comprising on the reading frames (ORF). The probes are used for gene expression analysis, and for identifying exons in a gene, particularly using human compression the exons should be assigned to a single gene; particularly using human compression of the exons should be assigned to a single sease (ORDP), interstitial lung cancer, chronic obstructive pulmonary disease (ORDP), interstitial lung cancer, chronic obstructive pulmonary disease (ORDP), interstitial lung cancer, chronic obstructive pulmonary dis ö Spatially-addressable set of single exon nucleic acid probes, used to measure gene expression in human lung samples. Gaps invention relates to a spatially-addressable set of single exon . 0 directly from WIPO at ftp.wipo.int/pub/published_pct_sequences 100.0%; Score 114; DB 5; Length 75; 100.0%; Pred. No. 4.5e-10; ive 0; Mismatches 0; Indels Claim 27; SEQ ID NO 29811; 634pp; English Sequence 75 AA;

1 PRCGNPDVANYNFFPRKPK 19 Query Match 100. Best Local Similarity 100. Matches 19; Conservative

g

ò

AEA20074 standard; protein; 194 AA 11-AUG-2005 (first entry) AEA20074; RESULT 17 AEA20074 **EXXXXXXXXXXX**

vulnerary; CNS-gen.; gene therapy; diagnostic; forensic; mapping;
DNA purification; protein purification; osteoarthritis; antiarthritic;
osteopathic; musculoskeletal disease; osteoporosis; endocrine disease;

Novel human polypeptide SEQ ID NO 768.

biological activity; genetic engineering; hybridisation probe; oligomer; primer; chromosome mapping; gene mapping; recombinant protein production;

Human polypeptide sequence SEQ ID NO:1954.

(first entry)

12-FEB-2004

ADF59546;

ADF59546 standard; protein; 445 AA

83

9

RESULT 18

ADF59546

```
periodontal disease; antiinflammatory; mouth disease; burns; injury; peripheral neuropathy; Alzheimers disease; neuroprotective; nootropic; degeneration; parkinsons disease; antiparkinsonian; neurological disease; cerebrovascular ischemia; cerebroprotective; vasotropic; cardiovascular disease; autoimmune disease; immunosuppressive; immunosuppressive; immuno disease; infection; cancer;
                                                                                                                                                                                                                                                                               New polynucleotide encoding a polypeptide with biological activity, useful for treating a disease or disorder, e.g. osteoarthritis, burns, CNS and peripheral disease, stroke, autoimmune disorders, viral
                                                                                                                                                                                                          Zhou P, Ma Y;
Goodrich R, Chen R;
                                                                                                                                                                                                          Wang ZW, Zhang J, Ren F,
Asundi V, Zhao Q, Wang D,
                                                                                                                                                                                                                                                                                                                                   Claim 20; SEQ ID NO 768; 500pp; English.
                                                                                                                                                                                                                               Boyle B;
                                                                                                                                             11-MAR-2004; 2004WO-US007412.
                                                                                                                                                                  14-MAR-2003; 2003US-00389559
                                                                                                                                                                                                                                                                                                                infection, or cancer.
                                                                                                                                                                                                                               Wehrman T, Weng G,
                                                              cytostatic; neoplasm
                                                                                                                                                                                                                                                   WPI; 2005-417730/42.
                                                                                                                                                                                      (NUVE-) NUVELO INC.
                                                                                                                                                                                                          Tang TY, Wang J,
Ghosh M, Xue A,
                                                                                                                                                                                                                                                            N-PSDB; AEA19507
                                                                                                      WO2005049806-A2
                                                                                  Homo sapiens.
                                                                                                                         02-JUN-2005.
```

New polynucleotides, useful as hybridization probes, oligomers or primers, for chromosome or gene mapping, for the recombinant production of proteins, and for generating antisense DNA or RNA.

Claim 20; SEQ ID NO 1954; 571pp; English

Ma Y;

Weng G,

Tang YT, Yang Y, Wang Z,

(HYSE-) HYSEQ INC.

WPI; 2003-876918/81.

N-PSDB: ADF58546

09-AUG-2002; 2002WO-US025485. 09-AUG-2001; 2001US-0311261P.

WO2003080795-A2 Homo sapiens.

human.

02-OCT-2003

```
The invention describes a new isolated polymucleotide (I) encoding a polypeptide with biological activity comprising: a nucleotide sequence of the NoS: 1-567 (tully defined); a nucleotide sequence of to the sequence of (I) under stringent hybridization conditions; or a nucleotide sequence of (I) under stringent hybridization conditions; or a nucleotide sequence of (I) absorbed are: a(n) (expression) vector comprising (I); a host cell genetically engineered to comprise (I) operatively, associated with a regulatory sequence that modulates expression of the polymucleotide in the host cell; an isolated polypeptide comprising a sequence of SEQ ID NOS: 568-1134 (fully defined), where the polypeptide (IS: a polypeptide encoded by (I); or a polypeptide encoded by a sequence of SEQ ID NOS: 568-1134 (fully defined), where the polypeptide of carrier; an antibody directed against the polypeptide of (3); a method (or detecting the polypeptide of (3); a method (or identifying a compound that binds to the collection of polymucleotides, where the collection comprising any of the sequences of SEQ ID NOS: 1-567. (I) is a polymucleotide with biological cutvity, which comprises any of the amino acid sequence of SEQ ID NOS: 1-567. (I) is a polymucleotide with biological cutvity, which comprises any of the amino acid sequence of SEQ ID NOS: 1-567. (I) is a polymucleotide comprising any of the sequences and methods are useful in diagnostics, forensic, and gene cutvity, which comprises any of the amino acid sequences or dispenses or the relation of dispense or dispense or composition and method are useful for treating a disease or dispense. Service or succeoprosis, observativity, not service or succeopriment of paymons seponences. Service or succeoprises and produces dependent on DNA and amino acid sequences. Service or succeoprise and produces sequences and encoded by the sequence or sequences or detection or seponence or sequences or descentivity, and for treating a disease, burns, or succeoproces, or succeoprative or sequences or d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                autoimmune disorders, viral infection, or cancer. This is the amino acid sequence of a novel polypeptide of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 194 AA;
```

```
The present sequence represents a polypeptide (II) with biological activity, which is encoded by an isolated polynucleotide sequence (I) from the present invention. Also described: (I) a vector comprising (I); (2) an expression vector comprising (I); (3) a host cell genetically engineered to comprise (I) which is operatively associated with a cerulatory sequence that modulates expression of (I) in the host cell; (4) a polypeptide (II) encoded by (I); (5) a composition comprising the polypeptide of (4); and a carrier; (6) an antibody directed against the colypeptide of (4); (7) detecting (I) or the polypeptide of (4); in a sample; (8) identifying a compound that binds to the polypeptide of (4); (6) producing the polypeptide of (4); and (10) a collection of polymucleotides comprising at least one of the polymucleotide sequences (I). The polymucleotides (I) can be used as hybridisation probes, coligomers or primers, for chromosome or gene mapping, for the recombinant production of proteins, and for generating antisense DNA or RNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 114; DB 7; Length 445; 100.0%; Pred. No. 3.2e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AEA90447 standard; protein; 462 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 445 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 19
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
```

ö

19; Conservative

Best Local Similarity

Query Match Matches

ö

Gaps

ö

0; Indels

0; Mismatches

100.0%; Score 114; DB 9; Length 194; 100.0%; Pred. No. 1.3e-09;

us-10-601-059-11.rag

```
Human, chromosome mapping, gene mapping, gene therapy, forensic,
food supplement, medical imaging, diagnostic, genetic disorder.
                                                                 Novel human diagnostic protein #23992.
                  18-FEB-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Drmanac RT, Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001-639362/73
                                                                                                                                                                                                                                                                                                                                                                                                                             (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-PSDB; AAS88188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 468 AA;
                                                                                                                                                                                                                       WO200175067-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              biodiversity.
                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABM84057
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to human nucleic acid molecules that are specific to lung cells, lung tissue and/or the lung organ. These lung specific nucleic acids may be naturally occurring cDNA, genomic DNA, RNA or a fragment, or a non-naturally occurring nucleic acid. Due to alternative splicing and transcriptional modification one lung-specific correct alternative splicing and transcriptional modification one lung-specific correct or alternative splicing and transcriptional modification one lung-specific correct in a part of the modification one lung-specific correct in a patient. List) sequences, Described is a method of determining the presence of a lung specific nucleic acid correct or protein in a sample; and a cancer in a patient. Claimed is a vaccine comprising the polypeptide or the nucleic acid encoding the polypeptide or cancer in a patient. Claimed is a vaccine comprising the presence of a lung specific nucleic acid in a sample comprises contacting the sample correct in a patient. Claimed is a vaccine comprising the presence of a lung specific nucleic acid in a sample comprises contacting the sample correct in a patient. Claimed is useful for treating a patient with lung specific nucleic acid nolecule above which will hybridize to a lung specific acid molecule as useful for treating a patient with lung cancer cell expressing the nucleic acid molecule and polypeptide are also useful for identifying, claimide is useful molecule or polypeptide. The nucleic acid molecule and polypeptide are also useful for identifying and/or designing (ant) agonists of the polypeptide, and for identifying and/or designing (ant) agonists of the polypeptide, and for identifying and/or designing (at a human lung specific protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     acid molecule from Homo sapiens, useful for identifying, monitoring, staging, imaging and treating a patient with lung
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                       DNA hybridization; diagnosis; diagnostic; lung tumor; vaccine; cytostatic; gene therapy; drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 114; DB 9; Length 462; 100.0%; Pred. No. 3.4e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                          Human lung specifc protein, DEX0486_001.aa.1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 12; SEQ ID NO 56; 247pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New nucleic acid molecule from Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cancer and non-cancerous diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                 24-MAY-2004; 2004US-00852707
                                                                                                                                                                                                                                                                                                                                                         22-MAY-2003; 2003US-0473941P
                  08-SEP-2005 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Macina RA, Turner LR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2005-457785/46.
                                                                                                                                                                                                                                                                                                                                                                                                   (MACI/) MACINA R A. (TURN/) TURNER L R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 462 AA;
                                                                                                                                                                                                                       US2005142572-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUNY/) SUN Y.
                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                  30-JUN-2005.
```

ABG24001 standard; protein; 468 AA.

RESULT 20 ABG24001

ठ

ABG24001;

```
The invention relates to isolated polymucleotide (I) and polypeptide (II) sequences. (I) is useful as hybridisation probes, polymerase chain caction (PCR) primers, oligomers, and for chromosome and gene mapping, and in recombinant production of (II). The polymucleotides are also used in diagnostics as expressed sequence tags for identifying expressed corpus of (II) as useful in gene therapy techniques to restore normal cactivity of (II) or to treat disease states involving (II). (II) is useful for generating antibodies against it, detecting or quantitating a cupylement. (II) and its binding partners are useful in medical imaging of sites expressing (II). (I) and (II) are useful for treating disorders involving abscrant protein espensions in diagnostics, forensics, gene mapping, identification of mutations diagnostics, forensics, gene mapping, identification of mutations of esponsable for genetic disorders or other traits to assess biodiversity and to produce other types of data and products dependent on DNA and amino acid sequences. Absconolo-Abg30377 represent novel human diagnostic maino acid sequences of the invention. Note: The sequence data for this patent did not appear in the printed specification, but was obtained in electronic format directly from WHDO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 468;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
100.0%; Score 114; DB 4;
Best Local Similarity 100.0%; Pred. No. 3.4e-09;
Matches 19; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 20; SEQ ID NO 54360; 103pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABM84057 standard; protein; 623 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        86 PRCGNPDVANYNFFPRKPK 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                           Tang YT,
30-MAR-2001; 2001WO-US008631
                                                                          31-MAR-2000; 2000US-00540217
23-AUG-2000; 2000US-00649167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-NOV-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABM84057;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    XXXX
```

```
The original source of the protein material was H-ras transformed human bronchial epithelial cells (TBB-1). The AA sequence was then used to develop oligonucleotide probes which were used to oscreen a cDNA library of human skin fibroblast mRNA. The longest clone, pGEL 186.2, represented almost the full gelatinase mRNA sequence except the leader sequence encoding the first few AA's of the signal peptide. (Updated on 25-MAR-2003 to correct PF field.) (Updated on 25-MAR-2003 to correct PR field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA encoding human type IV collagenase (gelatinase) - for use in the treatment of hypertrophic scars, keloids and intervertebral disc disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human type IV collagenase; gelatinase; hypertrophic scars; keloids; intervertebral disc disease; extracellular matrix metalloprotease; bronchial epithelial cells; TBB-1 cells; pGell86.2; type II motif; fibonectin; collagen-binding domain.
                 Sequence of human type IV collagenase (gelatinase) in pGEL 186.2.
                                                         Hypertrophic scar; keloid; intervertebral disc disease; enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 114; DB 1; Length 631; 100.0%; Pred. No. 4.7e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human type IV collagenase (gelatinase).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAP91139 standard; protein; 631 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure, Fig 3, 36pp, English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               71 PRCGNPDVANYNFFPRKPK 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                              88GB-00820803.
                                                                                                                                                                                                                                                                        87US-00093421.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                          Eisen AZ, Goldberg GI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. .1
193.
197.
255.
313.
                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1989-147011/20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
ses 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; AAN91700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 631 AA;
                                                                                                                                                                                                                                                                        04-SEP-1987;
                                                                                                     Homo sapiens
                                                                                                                                                                                                                              02-SEP-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Domain
Duplication
Duplication
Duplication
Domain
                                                                                                                                          3B2209526-A.
                                                                                                                                                                                    17-MAY-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-MAR-2003
18-DEC-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAP91139;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Key
Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAP91139
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to novel diagnostic and therapeutic polymucleotides selected from one of the 2722 sequences defined in the specification. A propertie of the invention may have a use in gene therapy. The human diagnostic and therapeutic polymucleotides (dithp) or polypeptides may be used to diagnose a particular condition, disease or disorder associated with human molecules, e.g. cell proliferative disorders, endocrine cautoimmune/inflammatory disorder, developmental disorders, endocrine disorder, neurological disorder, gastrointestinal disorders, or infections caused by virus, bacteria, fungi or parasite. The dithp conflections caused by virus, bacteria, fungi or parasite. The dithp conflorment of molecules may also be used in genetic mapping, in identifying individuals from minute biological samples, in detecting single mucleotide polymorphisms, as molecular weight markers, and for somatic or germline cannot hological samples in detecting single mucleotide control of the printed specification, but was obtained in electronic format directly from WIPO at www.wipo.int/pct/en/sequences/listing.htm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ô
                                                                                                                                                                                                                                                                                                                                                       scnmidt JP, Wright RJ, Bruns CM, Marjanovic MM, Shen F;
Harthshorne TA, Suchorolski MT, Altus CM, Pitts SJ, Elder LV;
Mooney EM, Delegeane AM, Panesar IS, Banville SC, Reddy TP;
Stevens KA, Blanchard JL, Panzer SR, Wang X, Au AP, Gerstin EH;
Peralta CH, Anderson SB, Rioux P, Shen EJ, Wu MC, Stuve LL;
Lagace RE, Spiro PA, Stewart RA, Wingrove J, Vitt UA, Kirton ES;
Xu Y, Kwong M, Policky JL, Hurwitz BL, Ma Y, Jackson JL, Gietzen D;
Patury S, Shi X, Suarez CJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in diagnosing a condition, disease or disorder associated with human molecules, e.g. autoimmune or inflammatory disorders, in gene therapy or in gene mapping.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  diagnostic and therapeutic polynucleotides and polypeptides, useful
                                                         gene therapy, human diagnostic and therapeutic polynucleotide, dithp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 623;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Indels
               Human diagnostic and therapeutic pprotein SEQ ID NO:4306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 114; DB 8; 100.0%; Pred. No. 4.7e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAP96143 standard; protein; 631 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRCGNPDVANYNPPPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRCGNPDVANYNPPPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 27; Page; 190pp; English
                                                                                                                                                                                                                                                                      12-SEP-2002; 2002US-0410259P.
                                                                                                                                                                                                                          12-SEP-2003; 2003WO-US028227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2004-329368/30.
N-PSDB; ACN42709.
                                                                                                                                                                                                                                                                                                                                 (INCY-) INCYTE CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 623 AA;
                                                                                                                                        WO2004023973-A2
                                                                                                   Homo sapiens
                                                                                                                                                                                  25-MAR-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-MAR-2003
09-MAY-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAP96143;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -
```

New

Matches

ઠ 요 RESULT 22

AAP96143 ID AAP9 XX AC AAP9 XX DT 25-M

ö

Gaps

ö

0; Indels

```
label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1990-290093/38.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 631 AA;
                                                                                                                                                                                                                                                                                                                                                                                                     USN7317407-N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-MAR-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAR-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                       21-AUG-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Liotta LA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               detection
                 Peptide
                                                    eptide
                                                                                        Peptide
                                                                                                                            Peptide
                                                                                                                                                              Peptide
                                                                                                                                                                                                Peptide
                                                                                                                                                                                                                                    Peptide
                                                                                                                                                                                                                                                                        Peptide
                                                                                                                                                                                                                                                                                                            Peptide
                                                                                                                                                                                                                                                                                                                                                Peptide
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                     DNA encoding human type IV collagenase (gelatinase) - for use in the treatment of hypertrophic scars, keloids and intervertebral disc disease.
                                                                                                                                                                                                                                                                                                                                        Human type IV collagenase (gelatinase). Protein source was H-ras determined human bronchial epithelial cells (TBE-1). The sequence was determined from clone pdel 186.2 which represents almost the full mRNA sequence. Peature 1 is the N-terminal domain, I; feature 2 is a middle domain, II, which is organised into 3 x 58 amino acid long head to tail repeats (features 4,5, and 6). These show homology to the type II motif collagen binding domain of fibronectin. Feature 3 is the C-terminal domain. The enzyme could be used in the treatment of hypertrophic scars, Keloids, and intervertebral disc disease. See also AAN91700. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PR field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Type IV collagenase, peptide fragments, metalloproteinase detection, antibodies, metalloptroteinase inhibition; angiogenesis, arthritis, tumour growth, metastasis, granulomatous inflammatory conditions;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 114; DB 1; Length 631; 100.0%; Pred. No. 4.7e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAR07969 standard; protein; 631 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              71 PRCGNPDVANYNFFPRKPK 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                          Claim 2; Fig 6; 36pp; English
                                                                    88GB-00820803.
                                                                                                       87US-00093421.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Complete type IV collagenase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1. .18
/label= 1
19. .33
/label= 2
26. .42
/label= 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity 100.
es 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           34. .50
/label= 4
51. .66
/label= 5
                                                                                                                                         (UNIW ) UNIV WASHINGTON.
                                                                                                                                                                             Goldberg GI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (revised)
                                                                                                                                                                                                                 WPI; 1989-147011/20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 631 AA;
                                                                    02-SEP-1988;
                                                                                                       04-SEP-1987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  lomo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-MAR-2003
17-DEC-2001
GB2209526-A
                                17-MAY-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-JAN-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sarciodosis
                                                                                                                                                                               Eisen AZ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAR07969;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             П
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAR07969

IID AAR0

XX AAC AAR0

XX XX AAR0

DT 15-D

IG-J

XX XX AAR0

XX 
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
```

```
Type IV procollagenase was purified from human A2058 melanoma cells. The complete amino acid sequence was determined (see also Hoyhtya, M. et al, (1988) FBES Letters 233, 109-113). Based on this sequence, peptides were synthesised (see features) having homology with a histidine contg domain at residues 371-386, a cysteine contg. domain at residues 200-370, the 80 cereidue amino terminus or a region 159 residues from the carboxy terminus. These regions correspond to the enzyme with the substrate. The peptides are useful in metalloproteinase detection and inhibition. They can be used in the treatment of inappropriate angiogenesis, arthritis, tumour growth, invasion and metastasis and granulomatous inflammatory conditions such as sarciodisis. The peptides can be used to produce antibodies. Peptide 6, at concn. of 0.1 mM inhibited 80% of the caryme activity. See also US/494794, and W09010228. (Note: Revised entry submitted to correct the patent number format of US Government-owned NTIS applications to prevent clashes with ongoing US granted patent numbers. For further information please visit the Derwent web site at two-derwent.com/dwpi/updates/furis us.html.) (Updated on 25-MAR-2003 to correct PA field.) (Updated on 25-MAR-2003 to correct PI field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New type-IV collagenase peptide fragments - used for metallo-proteinase detection and inhibition and for producing antibodies for enzyme
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 114; DB 2; Length 631; 100.0%; Pred. No. 4.7e-09; ive 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Stetlerste W, Krutzsch H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure, Fig 1; -pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              71 PRCGNPDVANYNFFPRKPK 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         89US-00317407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            89US-00317407
                                                                                                                                                                                   141. .150
/label= 10
                                                                                                                                                                                                                                            299. .307
/label= 11
308. .318
                                                                                                                                                                                                                                                                                                                                      /label= 12
344.368
/label= 13
371.386
                                                                                                                                                                                                                                                                                                                                                                                                                                                         /label= 14
372. .375
/label= 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         472. .491
/label= 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (USDC ) US NAT CANCER INST
(USDC ) US SEC OF COMMERCE.
67. .80
/label= 6
69. .75
/label= 8
                                                                                                                            75. .94
/label= 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.0
```

```
WPI; 1998-041758/04.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 631 AA;
                                              Homo sapiens
                                                               WO9745447-A1
                                                                                                  30-MAY-1997;
                                                                                                                      31-MAY-1996;
31-MAY-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              03-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                  04-DEC-1997
                                                                                                                                                                      ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADM48668;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                      Brooks
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADM48668
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                        This sequence represents a human type IV matrix metalloprotease (MMP) zymogen (precursor protein). The invention relates to MMP inhibitor peptides which can be used to treat tissue damage caused by activated MMPB, e.g. for treating inappropriate anglogenesis, arthritis, tumour growth, invasion and metastashs and granulomatous inflammatory conditions such as sarcoidosis. Antibodies to the peptides can be used to detect the MMMP and can distinguish activated from latent enzyme. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PA field.) (Updated on 25-MAR-2003 to correct PA field.)
                                                                                                         Matrix metalloprotease; inhibitor; tissue damage; angiogenesis; antibody; arthritis; tumour growth; granulomatous inflammatory condition; enzyme; metastasis; sarcoidosis.
                                                                                                                                                                                                                                                                                                                                                            Matrix metallo:proteinase peptide(s) - used to inhibit enzyme in treating tissue damage caused by activated enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human mature matrix metalloprotease-2 (MMP-2) protein sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 114; DB 2; Length 631; 100.0%; Pred. No. 4.7e-09;
                                                                                                                                                                                     /note= "designated in specification as U"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Indels
                                                                                         Human type IV matrix metalloprotease protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                        Liotta LA, Stetlerste W, Krutzsh H;
                                                                                                                                                                   Location/Qualifiers
                          AAY07350 standard; protein; 631 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW41226 standard; protein; 631 AA
                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Fig 1; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  71 PRCGNPDVANYNFFPRKPK
                                                                                                                                                                                                                                              89US-00317407
                                                                                                                                                                                                                                                               89US-00317407
                                                                                                                                                                                                                                                                                           (USDC ) US SEC OF COMMERCE. (USSH ) NAT INST OF HEALTH.
                                                               (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1990-290458/38
                                                                                                                                                                             Misc-difference 452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 631, AA;
                                                                                                                                                                                                                                              01-MAR-1989;
                                                                                                                                                                                                                                                               01-MAR-1989;
26-FEB-1990;
                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09-JUN-1998
                                                              25-MAR-2003
16-JUL-1999
                                                                                                                                                                                                                            07-SEP-1990,
                                                                                                                                                                                                         WO9010228-A
                                            AAY07350;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW41226;
       RESULT 25
               AAW41226
ID AAW
XX
AC AAW
XX
DT 09-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
```

```
The present sequence represents the mature protein of human matrix metalloprotease-2 (MMP-2). Fragments of this protein (AAM41228-33) are able to act as alpha-v-beta-5 can inhibit to vitronectin receptor. Inhibitors of alpha-v-beta-5 can inhibit an inhibitor. Inhibitors of angiogenesis. The specification describes a novel labelled package that contains an inhibitor of angiogenesis i.e. an alpha-v-beta-5 antagonising polypeptide that binds to integrin alpha-v-beta-5 antagonising polypeptide that binds to integrin alpha-v-beta-5 and includes a part of the C-terminal domain of MMP. The antagonists are used to inhibit to angiogenesis in inflamed tissue, in solid tumours or metascases, and in a wide range of ocular disorders (e.g. diabetic or other forms of retinopathy, neovascular glaucoma, or corneal transplants). They are retinopathy, neovascular glaucoma, or corneal transplants). They are retinopathy, neovascular glaucoma, or corneal transplants.

The alpha-v-beta-5 antagonists can also be used to treat restenosis caused by migration of smooth muscle cells following angioplasty and to inhibit neovascularisation where this is induced by cytokines, e.g. inhibit neovascularisation where this is induced by cytokines, e.g. transforming growth factor alpha, epidermal growth factor or especially
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Packaging material containing polypeptide antagonist of alphav, beta5 integrin - used for inhibition of angiogenesis, and for treating tumours, inflammation, eye diseases etc.
Matrix metalloprotease-2; MMP-2; alpha-v-beta-5 antagonist; treatment; vitronectin receptor; inhibition; angiogenesis; integrin; tumour growth; restenosis; neovascularisation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cancer, metastasis, matrix metalloproteinase-2, MMP-2, vaccine, immune response; gene therapy, cytostatic, enzyme; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 631;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human matrix metalloproteinase-2 (MMP-2) protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 114; DB 2;
100.0%; Pred. No. 4.7e-09;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Friedlander M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure, Fig 16; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADM48668 standard; protein; 631 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRCGNPDVANYNFFPRKPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97WO-US009099.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           96US-0015869P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 100.
nes 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (SCRI ) SCRIPPS RES INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cheresh DA,
```

```
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADT05997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                          Region
                                                                Region
Region
                      Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADT0599
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                      The present invention relates to novel synthetic oligopeptides effective in blocking cancer invasion and metastasis. The invention relates to matrix metalloproteinase 2 (MMP-2) peptides. The synthetic oligopeptides are useful as pharmaceutical compositions for blocking or treating cancer useful as pharmaceutical compositions for blocking or treating cancer useful and metastases in a human patient. In particular, they are useful for treating brain cancer, lung cancer is kin cancer or breast cancer. The oligopeptides are also useful as vaccines for preventing these cancers, enhancing immune response or raising antibodies for assays used to diagnose diseases involving matrix metalloproteinases or clinical monitoring of the progression or regression of disease. They are also useful in gene therapy. The present sequence is the human MMP-2 protein.
                                                                                                                                                                        New synthetic oligopeptide, useful for blocking or treating cancer invasion and metastases in a human patient, particularly as a vaccine for treating or preventing diagnosing brain cancer, lung cancer, skin cancer or breast cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              vitronectin receptor antagonist; neovascularisation; cancer; tumour; inflammation; rheumatord arthritis; retina; diabetic retinopathy; restenosis; smooth muscle cell migration; angioplasty; antiangiogenic; cytostatic; antiinflammatory; antiarthritic; antirheumatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ophthalmological; antidiabetic; vasotropic; muscular-gen.; peptidomimetic; matrix metalloprotease 2; MMP-2; gelatinase; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                          .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                    Length 631;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Angiogenesis inhibitor; integrin alpha-V beta-3 antagonist;
                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        410. .631
/note= "Corresponds to SEQ ID NO:17"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          439. .631
/label = Hemopexin domain
/note = Corresponds to SEQ ID NO:18
                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 114; DB 7; 100.0%; Pred. No. 4.7e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human mature matrix metalloprotease (MMP-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADT05996 standard; protein; 631 AA.
                                                                                                                                  Rath M;
                                                                                                                                                                                                                                    Example 1; Fig 1; 11pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRCGNPDVANYNFFPRKPK 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVANYNFFPRKPK 19
                                         23-JAN-2003; 2003US-00350258.
                                                                23-JAN-2002; 2002US-0351317P
                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                               Niedzwiecki A,
                                                                                     NETKE S.
NIEDZWIECKI A.
                                                                                                                                                       WPI; 2003-897356/82
                                                                                                                                                                                                                                                                                                                                                                                               Sequence 631 AA;
US2003139345-A1.
                                                                                                           RATH M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                     24-JUL-2003
                                                                                                                                  s,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADT05996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7.1
                                                                                    (NETK/) 1
(NIED/) 1
(RATH/) 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   enzyme
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Region
                                                                                                                                  Netke
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

```
The invention relates to a method of inhibiting angiogenesis in a tissue by the administration of a composition comprising an organic by the administration of a composition comprising an organic peptidomimetic antagonist of integrin alpha-V beta-3 diterior. Vitronectin receptor) The integrin alpha-V beta-3 antagonist and compositions containing it are useful for inhibiting angiogenesis in a variety of medical conditions. The antagonist may be used to induce the regression of solid tumours or solid tumour metastrases; to inhibit the growth of solid tumours undergoing neovascularisation; to treat inflamed tissue in which neovascularisation is occurring (e.g., in rheumatoid arthritis); to treat neovascularisation in retinal tissue by inhibiting smooth muscle retinopathy; to treat restenosis in a tissue by inhibiting smooth muscle cell migration (such as that which occurs following angioplasty); and to reduce the blood supply to a tissue required to support new growth of the tissue. The present sequence represents human mature matrix metalloprotease 2 (MMP-2, gelatinase) used in an example of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Administration of composition comprising organic peptidomimetic alpha-v beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Angiogenesis inhibitor; integrin alpha-V beta-3 antagonist; vitronectin receptor antagonist; neovascularisation; cancer; tumour; inflammation; rheumatiod arthritis; retina; diabetic retinopathy; restenosis; smooth muscle cell migration; angioplasty; antiangiogenic; cytostatic; antiinflammatory; antiarthritic; antirheumatic; ophthalmological; antidiabetic; vasotropic; muscular-gen.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 114; DB 8; Length 631; 100.0%; Pred. No. 4.7e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                 "Corresponds to SEQ ID NO:20"
                                                                                                      "Corresponds to SEQ ID NO:19"
                                                                                                                                                                                                                                      "Corresponds to SEQ ID NO:22"
                                                                                                                                                                        to SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mouse mature matrix metalloprotease (MMP-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 2; Fig 7A-C; 184pp; English.
                                                                                                                                                                            "Corresponds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADT05997 standard; protein; 633 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 PRCGNPDVANYNPPPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRCGNPDVANYNFFPRKPK 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-MAR-2004; 2004WO-US009321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-MAR-2003; 2003US-00402212
.546
                                                                  .512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                    .631
                                                                                                                                                                                                      .631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (SCRI ) SCRIPPS RES INST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19; Conservative
                                                                                                                                                                     /note= "
543. .63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DA;
                                                                                                   note=
                                                                                                                                                                                                                                              /note=
                                        note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2004-737508/72.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cheresh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 631 AA;
                                                                                                                                                                                                                                                                                                                402004087057-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                      14-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Brooks PC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nvention.
```

us-10-601-059-11.rag

```
AAR06420;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                      The invention relates to a method of inhibiting angiogenesis in a tissue by the administration of a composition comprising an organic by the administration of a composition comprising an organic peptidomiment alpha-V beta-3 attaconnectin receptor). The integrin alpha-V beta-3 attaconist and compositions containing it are useful for inhibiting angiogenesis in a variety of medical conditions. The antagonist may be used to induce the regression of solid tumours or solid tumour metastases; to inhibit the growth of solid tumours undergoing neovascularisation; to treat inflamed tissue in which neovascularisation in retinal tissue (e.g., in rhemmatoid arthritis); to treat neovascularisation in retinal tissue (e.g., in diabetic retinopathy); to treat restenosis in a tissue by inhibiting smooth muscle retinopathy; to creat restenosis in a tissue by inhibiting smooth muscle celuce the blood supply to a tissue required to support new growth of the tissue. The present sequence represents mouse matrix matrix in the present sequence represents mouse mature matrix in the present sequence represents mouse mature matrix.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                     Administration of composition comprising organic peptidomimetic alpha-v beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
peptidomimetíc; matrix metalloprotease 2; MMP-2; gelatinase; mouse;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matrix metalloproteinase-2; MMP-2; human; pain; analgesic; nerve tissue damage; stroke; haemorrhage; reperfusion injury; cerebral ischaemia; cerebral infarction; narcotic tolerance;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 633;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 114; DB 8;
100.0%; Pred. No. 4.8e-09;
ive 0; Mismatches 0;
                                                                     441. .633
/label = Hemopexin_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human matrix metalloproteinase-2 (MMP-2).
                                                                                                                                                                                                                                                                                                                     Example 2; Fig 7A-C; 184pp; English.
                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAB20490 standard; protein; 644 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRCGNPDVANYNPPPRKPK 89
                                                                                                                                                                         28-MAR-2003; 2003US-00402212
                                                                                                                                                   26-MAR-2004; 2004WO-US009321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                 (SCRI ) SCRIPPS RES INST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19; Conservative
                                                                                                                                                                                                                         Brooks PC, Cheresh DA;
                                                                                                                                                                                                                                                WPI; 2004-737508/72.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 narcotic withdrawal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 633 AA;
                                                                                                      WO2004087057-A2.
             murine; enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-JUN-2001
                                                                                                                             14-OCT-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB20490;
                                   Mus sp.
                                                                   Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Κeγ
 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
```

```
The present sequence is that of human matrix metalloproteinase-2 (WMP-2), previously known as 72 kDa galatinase and gelatinase A. MMP-2 is capable of degrading the extracellular matrix components of the basement membrane. The invention relates to methods for treating pain in a patient by administration of an inhibitor of MMP-2 and MMP-9 (see AAB20491). The administration of an inhibitor of MMP-2 is useful for treating nerve tissue damage (claimed), where the patient is suffering from a disease or ischaemia and creebral infarction (claimed). The method is useful for treating a disease, disorder or nerve tissue damage selected from thanced or exaggerated sensitivity to acute pain, burn pain, atypical facial pain, pack pain, complex regional pain syndrome clain pain, post-herpetic neuralgia, phantom limb pain, labour pain, concernion, post-herpetic neuralgia, phantom limb pain, labour pain, concernion, past-herpetic neuralgia, phantom limb pain, pain, post-erroke pain, post-cherpetic neuralgia, paintom limb pain, pain, post-erroke pain, post-cherpetic neuralgia, paintom limb pain, physiological pain, inflammatory pain, acute inflammatory conditions/visceral pain, neuralgia, painful diabetic retinopathy, cramatic nerve injury, and tolerance to narcotics or withdrawal from narcotics (claimed). MMP-2 polypeptides can also be used to screen for agonist or antagonist (inhibitor) compounds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Polypeptide for the treatment of pain and the reduction of tissue damage comprises an inhibitor of human matrix metalloproteinase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 114; DB 4; Length 644; 100.0%; Pred. No. 4.9e-09; tive 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hypertrophic scars; keloids; intervertebral disc disease; ds
                                                                                                                                                                                                                                                                                                                                                                                                                 Romanic Arnold A, Barone FC, Bingham S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR06420 standard; protein; 660 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Type IV collagenase cDNA product.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (SMIK ) SMITHKLINE BEECHAM CORP. (SMIK ) SMITHKLINE BEECHAM PLC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Fig 2; 61pp; English.
                                                                                                                                             11-OCT-2000; 2000WO-US027949.
                                                                                                                                                                                                                        99US-0158787P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-290654/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB; AAF30807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 644 AA;
WO200126671-A1.
                                                                                                                                                                                                                        12-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ното варіепв
                                                                      19-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-MAR-2003
13-DEC-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US4923818-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-MAY-1990
```

```
The specification describes a pharmaceutical composition, comprising a growth factor, an inhibitor agent, i.e. a protease. The inhibitor agent inhibits the action of at least one specific adverse protein, i.e. a protease, that is upregulated in a damaged tissue such as a wound environment. Growth factors which are included in the composition of the invention are platelet-derived growth factor (PDGP), fibroblast growth factor (FGP), connective tissue derived growth factor (CTGP), connectived growth factor (KGF), transforming growth factor (VGF), cypeneral growth factor (KGF), vascular endothablal growth factor (VGF), and chrysalin. Inhibitors which are included in the composition of the invention include inhibitors of urokinase-type plasminogen activator (UPA) and matrix metalloproteinase (MMP). The composition is useful for the treatment of chronic damaged tissue, i.e. wounds and dermal ulcers. The present sequence represents a human MMP-2, and is used to produce the composition of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human, matrix metalloproteinase; MMP-2; hair growth; antisense therapy; endopeptidase; skin cell; breast cancer; hair follicle; chromosome 11q22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel isolated matrix metalloproteinase-25 nucleic acid molecule and proteins encoded by them whose inhibition is useful for modulation of hair growth in mammals.
                                                                                                                                                                                                                                                                                                                                                                                                                           ; Score 114; DB 4; Length 660; Pred. No. 5e-09; 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note= "Zinc and calcium binding domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human matrix metalloprotinase-2 (MMP-2) protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100. 106 / Jabel = Cysteine_switch_domain / 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1. .27
/label= Signal_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOSS P;
  Disclosure; Page 552; 572pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAE10431 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Smith R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DARWIN MOLECULAR CORP
                                                                                                                                                                                                                                                                                                                                                                                                                               100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         06-MAR-2001; 2001WO-US007167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               06-MAR-2000; 2000US-0187196P
                                                                                                                                                                                                                                                                                                                                                                                                                                                100.001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SCHATZMAN R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Wang K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-582276/65.
                                                                                                                                                                                                                                                                                                                                                                                         Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200166766-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fajardo M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAE10431;
                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DARW-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (SCHA/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAE10431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           %X333333333333333333333333333333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Growth factor; protein inhibitor; protease; damaged tissue; platelet-derived growth factor; PGF; fibroblast growth factor; FGF; connective tissue derived growth factor; CTGF; chrysalin; VEGF; keratinocyte-derived growth factor; KGF; epidermal growth factor; EGF; transforming growth factor-beta; TGF-beta; matrix metalloproteinase; MMP; granulocyte macrophage colony stimulating factor; GM-CSF; uPA; vascular endothelial growth factor; urokinase plasminogen activator;
                                                                                                                                                                                                                    Recombinant human type IV collagenase - used in treatment of hypertrophic scars, keloids and intervertebral disc disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Composition for the treatment of damaged tissue i.e. chronic wounds and dermal ulcers comprises an inhibitor agent i.e. a protease and a growth
                                                                                                                                                                                                                                                                                                                        cDNA clone enables production of type IV collagenase, useful in catalysing cleavage of extracellular matrix macromolecules, and in treatment of hypertrophic scars, keloids and invertebral disc disease. (Updated on 25-MAR-2003 to correct PA field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Amino acid sequence of matrix metalloproteinase gelatinase A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 114; DB 2; Length 660; 100.0%; Pred. No. 5e-09; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Occleston NL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mcintosh FS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB84607 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                    Claim 3; Fig 9; 23pp; English.
89US-00352069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-DEC-2000; 2000WO-IB001935.
                                        89US-00352069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99GB-00030768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Davies MJ, Huggins JP,
                                                                                (UNIW ) UNIV WASHINGTON
                                                                                                                        Eisen AZ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       dermal ulcer; wound.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-418351/44.
                                                                                                                                                            WPI; 1990-245482/32.
N-PSDB; AAQ05620.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (PFIZ ) PFIZER LTD.
(PFIZ ) PFIZER INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; AAH28222
                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200149309-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-DEC-1999;
15-MAY-1989;
                                        15-MAY-1989;
                                                                                                                        Goldberg GL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              05-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB84607;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100
```

셤 8

factor.

ö

Gaps

```
ABB90738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                       The present sequence is human matrix metalloproteinase (MMP)-2 protein used in the exemplification of the invention. MMP-25 DNA is located on chromosome liq22. Matrix metalloproteinases are a family of zinc dependent endopeptidases that function extracellularly to degrade proteins typically found in the extracellular matrix. MMP-25 is expressed in skin cells of mammals, particularly in breast cells and hair follicles. WMP-25 DNA is useful for identifying a nucleic acid molecule encoding all or part of MMP by hybridising MMP-25 to a nucleic acid sample and identifying a sequence that hybridises in the nucleic acid sample. The identification step involves performing polymerase chain reaction (PCR) to amplify the hybridising sequence. WMP-25 antibody is useful for identifying type 25 MMP. MMP-25 protein inhibitors may be used to modulate hair growth and breast cancer in a mammal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; matrix metalloproteinase-2; MMP-2; enzyme; thrombolytic; antiocagulant; cardiant; antiarteriosclerotic; cytostatic; osteopathic; antinflammatory; antibacterial; virucide; fungicide; antipsoriatic; vulnerary; cerebroprotective; antianginal; ophthalmological; antirheumatic; antiarthritic; antiulcer; vasotropic; nephrotropic; alpha-vbeta-3 integrin receptor; thrombosis; tumour; osteoporosis; infection; veterinary medicine; rheumatoid arthritis; Crohn's disease; antimicrobial; antiseptic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             489. .497
/label= alpha-v-beta-3_integrin_receptor_binding_site
570. .585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /label= alpha-v-beta-3_integrin_receptor_binding_site 588. .597 /label= alpha-v-beta-3_integrin_receptor_binding_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 114; DB 4; Length 660; 100.0%; Pred. No. 5e-09; Cive 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Groth U, Zischinsky G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human matrix metalloproteinase 2 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABB79413 standard; protein; 660 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100 PRCGNPDVANYNFFPRKPK 118
                       Example 2; Fig 3; 119pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-AUG-2001; 2001WO-EP009899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-SEP-2000; 2000DE-01044325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   466. .660
/label= PEX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Jonczyk A, Diefenbach B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.
Marches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (MERE ) MERCK PATENT GMBH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  489.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-329868/36
                                                                                                                                                                                                                                                                                                                                                                                Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200220566-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Binding-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Binding-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3inding-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-MAR-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABB79413;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABB79413

ID ABB7

AC ABB7

XX ABB7

XX ABB7

XX ABB7

XX Huma anti
XX anti
XX anti
XX anti
XX Bund

XX Cos

8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          용
```

```
The invention relates to peptides (ABB79414-ABB79426) derived from the C-
terminal fragment PEX of matrix metalloprotease-2 (MMP-2). Matrix MMP-2
derivatives of formula X-Y-Z (1) and their salts and solvates are
C described. X = H, 1-10C alkanoyl or peptide fragment consisting of 1-20
described. X = H, 1-10C alkanoyl or peptide fragment consisting of 1-20
c naturally occurring amino acid residues; Y = peptide fragment selected
from the sequence region 466-660 of human Pro-WMP-2; and Z = OH, NH 2, NH
C-1-10C alkyl N(1-10C alkyl) 2 or peptide fragment consisting of 1-20
naturally occurring amino acid residues. Primary amino groups are
c optionally protected conventionally. The peptides and MMP-2 derivatives
are used for combating diseases involving interaction of ligands
c sepecially pathological processes supported or propagated by
ampiogenesis, thrombosis, cardiac infarction, coronary heart disease,
c sepecially pathological processes supported or propagated by
ampiogenesis, thrombosis, cardiac infarction, coronary heart disease,
c infections, psoriaeis or wound healing deficiency. More generally the
peptides and MMP-2 derivatives are useful in human and veterinary
c medicine for the treatment and/or prophylaxis of thrombosis, myocardial
c infarction, applexy, angina pectoris, tumour diseases, osteolytric
diseases (e.g. inflammation), ophthalmological diseases (e.g. inflammation), ophthalmological diseases (e.g. inflammation), rheumatoid arthritis, osteoarthritis
c rubbootic glaucoma), rheumatoid arthritis, osteoarthritis
c colitis, Crohn's disease, atherosclerosis, psoriasis, restenosis after
c majophasty, macular degeneration, myopta, ocular histoplasmosis or
c rubbootic glaucoma), rheumatoid arthritis, osteoarthritis
c operations involving biomaterials, implants, catheters or cardiac
c perentions involving biomaterials, implants, catheters or cardiac
c pacemakers); or as diagenses or reagents or reagents. The present sequence is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
New matrix metalloprotease-2 derivative peptides, are alpha-v-beta-3 integrin receptor inhibitors useful e.g. for treating thrombosis, cardiac infarction, tumors, osteoporosis, inflammation or infections.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; mouse; rat; TEM; tumour endothelial marker; NEM; PEM; cytostatic; normal endothelial marker; immunostimulant; antiangiogenic; tumour; necangiogenesis; vascularised tumour; necangiogenesis; vascularised tumoud polycystic kidney disease; diaberees; retinopathy; rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 114; DB 5; Length 660; 100.0%; Pred. No. Se-09; tive 0; Mismatches 0; Indels C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human Tumour Endothelial Marker polypeptide SEQ ID NO 208.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABB90738 standard; protein; 660 AA.
                                                                                                                                                                            Disclosure, Page 11; 35pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                that of the human MMP-2 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-AUG-2000; 2000US-0222599P.
11-AUG-2000; 2000US-0224360P.
11-APR-2001; 2001US-0282850P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-AUG-2001; 2001WO-US024031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
les 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200210217-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-FEB-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               psoriasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABB90738;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Loc
Matches
```

```
The present invention relates to a method for diagnosing breast cancer in a subject suspected of having endometrial cancer. The method comprises determining the expression of a set of human genes or expression products in an endometrial sample suspected of being cancerous. The human genes of the invention are differentially expressed in breast tumours endometrially expressed in breast tumours of some of contraining the cativity index). These sets of genes can be used to discriminate between high and low MAI breast tumours. The invention also provides DNA and protein microarrays for analysing the expression of the human genes and their products. The methods and arrays are useful for the diagnosis and prognosis of endometrial cancer, selecting and monitoring treatment regimes, and identification of compounds useful for the treatment of endometrial cancer. AND#361 represent the human proteins of the invention that are differentially expressed in breast cancer tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New purified human transmembrane protein, designated as tumor endothelial marker (TEM) 3, useful for detecting, diagnosing or treating tumors, polycystic kidney disease, diabetic retinopathy, rheumatoid arthritis or psoriasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention relates to a novel method for the isolation of endothelial cells (ECs), and the identification of genes expressed in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tumour endothelial marker; normal endothelial marker; PEM; pan-endothelial marker; polycystic kidney disease; psoriasis; diabetic retinopathy; rheumatoid arthritis; tumour anglogenesis; neoangiogenesis; immune response; cytostatic; antidiabetic; ophthalmological; antirheumatic; antiarthritic; antipsoriatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; endothelial cell; EC; tumour endothelial cell; TEM; NEM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 114; DB 5; Length 660;
Pred. No. 5e-09;
; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kinzler KW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 173-174; 374pp; English.
                      Claim 37; Page 185-187; 219pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human tumour endothelial marker TEM 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ŕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100 PRCGNPDVANYNFFPRKFK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABU54445 standard; protein; 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   St Croix B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-APR-2002; 2002WO-US008253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11-APR-2001; 2001US-0282850P.
06-FEB-2002; 2002US-0354262P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (UYJO ) UNIV JOHNS HOPKINS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-093016/08.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Carson-Walter E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-PSDB; ABX72017
                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200283874-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABU54445;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABU54445
*****************
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
                                                                                                                                                                                                                                                                                                                                                                            tumour endothelial marker (TEM) process selected from ABB90732, ABB90740, ABB90749, ABB90750 and ABB90769. The antibodies which bind to TEM proteins have cytostatic, immunostimulant and antiangiogenic activity. They are useful for inhibiting tumour growth, neoangiogenesis in subjects retinopathy, rhematoid arthritis and psoriasis. Human, mouse and rat TEM genes and the encoded proteins (ABL92075-ABL92141 and ABB90721-ABB90789) are disclosed, as are marker oligonucleotide sequences: tumour endothelial markers (TEM) ABL92042-ABL92041 and ABL92191; normal endothelial markers (NEM) ABL92042-ABL92041 and ABL92191; normal endothelial markers (NEM) ABL92042-ABL92044; and pan-endothelial markers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Diagnosing breast cancer comprises determining expression of nucleic acid molecules or expression products that are differentially expressed in normal and malignant tissue.
                                                                                                                                                                                                                                                                                                                                    The invention relates to an isolated molecule comprising an antibody variable region which specifically binds to an extracellular domain of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; diagnosis of breast cancer; endometrial cancer; breast tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                    An isolated molecule comprising an antibody variable region which specifically binds to an extracellular domain of a tumor endothelial marker (TEM) protein, useful for inhibiting tumor growth.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Protein MMP2 differentially expressed in breast cancer tissue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 114; DB 5; Length 660; 100.0%; Pred. No. 5e-09; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MAI, mitotic activity index; cytostatic.
                                                                   Vogelstein B;
                                                                                                                                                                                                                                                                                      Claim 54; Page 166-168; 331pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (BGHM ) BRIGHAM & WOMENS HOSPITAL INC.
(BAAK/) BAAK J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAU84348 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27-JUL-2001; 2001WO-US023642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-JUL-2000; 2000US-0222093P
                    SNIX HOPKING (DXJO)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                   St Croix B, Kinzler KW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                   WPI; 2002-291856/33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2002-180084/23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Baak J, Mutter GL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; ABK35568.
                                                                                                                                          N-PSDB; ABL92092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200210436-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-FEB-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU84348;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 36
```

AAU84348

ઠ 셤 B,

Vogelstein

ö

Gaps

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               matrix metalloproteinase inhibitor; antitumour; antiangiogenic; cardiant; vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic; vulnerary; cerebroprotective; antidiabetic; ophthalmological; tumour; dermatological; metastatic; non-metastatic; vascularised; heart disease; non-vascularised; surgical incision; chronic wound; stroke; angiogenesis; macular degeneration; diabetic retinopathy; cleavage region.
normal and tumour ECs. Tumour endothelial marker (TEM), normal endothelial marker (NEM), and pan-endothelial marker (PEM) genes are identified in human ECs. The human EC marker proteins and the polynucleotide sequences encoding them are useful for detecting, diagnosing or treating tumours as well as polycystic kidney disease, diabetic retinopathy, rheumatoid arthritis, and psoriasis. They are also useful for inhibiting neoangiogenesis or tumour angiogenesis, for inducing an immune response to tumour andiogenesis, for for identifying candidate drugs for treating tumours. The present for identifying candidate drugs for treating tumours. The present
                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              metalloproteinase, useful for decreasing the expression of vascular endothelial growth factor and treating cancers and tissue injuries.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Anti-angiogenic composition comprising peptide inhibitor of matrix
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 matrix metalloproteinase; MMP; anticancer; wound healing;
                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                           6; Length 660;
                                                                                                                                                                                                                     100.0%; Score 114; DB 6; Length 6
100.0%; Pred. No. 5e-09;
ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human matrix metalloproteinase 2 protein SEQ ID NO:14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 1; Page 43-44; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                                                                                                                                                                            ABP97136 standard; protein; 660 AA
                                                                                                                                                                                                                                                                                                           100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                          1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-AUG-2002; 2002WO-US026319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                         19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-381408/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Weart IF;
                                                                                                                                                                                         Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO2003018748-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ното варіелв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-MAR-2003.
                                                                                                                                                                                                                     Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Quirk S,
                                                                                                                                                                                                                                                                                                                                                                                                                                             ABP97136;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human;
                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                              RESULT 38
                                                                                                                                                                                                                                                                                                                                                                                            ABP97136
ID ABF
     88888888888888
                                                                                                                                                                                                                                                                                                                         용
                                                                                                                                                                                                                                                                                           Š
```

The present invention describes an anti-angiogenic composition (I) for inhibiting expression of vascular endothelial growth factor (VEGF). (I) comprises an effective amount of a peptide inhibitor of marrix metalloprotesinase (WMP), where the peptide can inhibit the expression of VEGF. (I) has cytostatic, vulnerary, cardiant, cerebroprotective, antidiabetic, ophthalmological and dermatological activities. (I) can be used for inhibiting expression of VEGF, and so can be used for inhibiting growth of tumours and diminishing tumours size. The tumour can be metastatic, non-metastatic, vascularised, non-vascularised, hard or soft.

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention comprises a crystalline form of a polypeptide corresponding to the catalytic domain of matrix metalloproteinase 9 (MMP9) protein - a gelatinase. The crystalline polypeptide of the invention is useful for treating a metalloproteinase mediated disease or condition in a warm-blooded animal. The crystalline polypeptide is also useful for determining the three-dimensional structure of the MMP9 catalytic domain to high resolution. The three-dimensional structure of the MMP9 catalytic domain is useful for rational drug design, and the atomic coordinates of the matalytic domain of MMP9 are useful for selecting or designing chemical modulators (preferably inhibitors) of MMP9. The crystalline polypeptide of the invention is useful in the treatment of a metalloproteinase mediated disease or condition, such as: tumour growth; metastasis in cancer; arthritis, osteoarchritis; atheroscierosis; restenosis; periodontitis; multiple sclerosis; glomerulonephritis; graft-
(I) is also useful for treating injuries including wounds, surgical incisions, chronic wounds, heart diseases and stroke. (I) is also useful for treating disorders characterised by excessive angiogenesis e.g. macular degeneration and diabetic retinopathy. The present sequence represents the human MMP-2 protein, which is used in the exemplification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; enzyme; crystalline polypeptide; matrix metalloproteinase 9; MMP9 gelatinase; metalloproteinase mediated disease; drug design; arthritis; three-dimensional structure; MMP9 inhibitor; tumour growth; cancer metaltasis; osteoarthritis; atherosclerosis; periodontitis; multiple sclerosis; glomerulonephritis; MMP9 modulator; graff-versus-host disease; non-insulin dependent diabetes; MMP2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel crystalline form of a polypeptide corresponding to the catalytic domain of matrix metalloproteinase 9 protein, useful for selecting or designing chemical modulators which are used for treating diabetes,
                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                           ;
0
                                                                                                                                                                        6; Length 660;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human matrix metalloproteinase 2 (MMP2) gelatinase protein.
                                                                                                                                                        s,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rowsell
                                                                                                                                                                                                                                                                                                                                                                                  ż
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ъ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Fig 7; 227pp; English
                                                                                                                                                                                                                                                                    AAO16608 standard; protein; 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pauptit
                                                                                                                                                                                                                                                 13
                                                                                                                                                                                                                                               1 PRCGNPDVANYNFPPRKPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-JUN-2002; 2002WO-SE001266.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-JUN-2001; 2001SE-00002298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   matrix metalloproteinase 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                           Conservative
                                                                                                the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Jepson H, Minshull C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (ASTR ) ASTRAZENECA AB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-201502/19
                                                                                                                                                                                  Local Similarity
es 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cancer, arthritis.
                                                                                                                                     Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO2003002729-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09-JAN-2003
                                                                                                                                                                                                                                                                                    100
                                                                                                                                                                                                                                                                                                                                                                                                                     AA016608;
                                                                                                                                                                      Query Match
                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                             RESULT 39
                                                                                                                                                                                                                                                                                                                                                                 AA016608
                                                                                                                                                                                                                                                                                                                                                                                  8888888888
                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                  셤
```

human; disease state; cytostatic; antiinflammatory; ophthalmological; antiarteriosclerotic; vulnerary; gene therapy; hypoxia-regulated condition; tumourigenesis; angiogenesis; apoptosis; inflammation; erythropoiesis; glycolysis; gluconeogenesis; glucose transportation; catecholamine synthesis; iron transport; nitic cande synthesis; cancer; ischaemic condition; reperfusion injury; retinopathy; neonatal stress; pre-eclampsia; atherosclerosis; inflammatory condition; wound healing.

Human disease related protein SegID9

(first entry)

15-JAN-2004

ADD18578;

ADD18578 standard; protein; 660 AA.

RESULT 41

ADD18578

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention relates to peptide inhibitors of metalloproteinases (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have peptide sequences related to the cleavage regions of the proenzyme forms of the MMPS. The peptide inhibitors are useful for stimulating callular proliferation of fibroblasts or keratinocytes, promoting healthy skin development, treating wounds, preventing scarring, improving skin tone, reducing wrinkling and for simulating the development of smooth, healthy skin. The peptide inhibitors are useful as anti-aging and wound healing compounds. The present sequence represents human MMP-2
versus-host disease; and non-insulin dependent diabetes. The present amino acid sequence represents a human matrix metalloproteinase 2 (MMP2)
                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2;
cleavage region; proenzyme form; cellular proliferation; fibroblast;
keratinocyte; healthy skin development; wound healing; scarring;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel peptide inhibitor of proteinase activity of matrix metalloproteinases, e.g. matrix metalloproteinase-2, useful for stimulating cellular proliferation of fibroblasts or keratinocytes.
                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 114; DB 6; Length 660; 100.0%; Pred. No. 5e-09; ive 0; Mismatches 0; Indels
                                                                                                     Length 660;
                                                                                                                                        0; Indels
                                                                                                     100.0%; Score 114; DB 6; 100.0%; Pred. No. 5e-09;
                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            skin tone; wrinkle; anti-aging; vulnerary
                                                                                                                                                                                                                                                                                                                                                                                                      Human matrix metalloproteinase-2 (MMP-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 1; Page 41-42; 120pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                                                                ABG76322 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S, Malik S, Villanueva JM;
                                                                                                                                                                                                           PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                          1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-AUG-2002; 2002WO-US026198
                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                      Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-289980/28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 660 AA;
                                                                     Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO2003016520-A1.
                                                                                                                                                                                                                                                                                                                                                                     10-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27-FEB-2003.
                                                                                                                                                                                                             100
                                                                                                                                                                                                                                                                                                                                   ABG76322;
                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                    protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Quirk
                                                                                                                                                                                                                                                              RESULT
ABG7632
8X3333
                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                ò
```

23-AUG-2001; 2001GB-00020558. 05-OCT-2001; 2001GB-00024037. 23-AUG-2002; 2002WO-GB003892

WO2003018621-A2

06-MAR-2003

Homo sapiens

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This invention relates to novel human genes and gene product which are implicated in certain disease states. Compounds which modulate the proteins of the invention may have cytostatic, antinflammatory, ophthalmological, antiatteriosclerotic or vulnerary activities. The sequences of the invention may be useful for gene therapy. The invention may be useful for gene therapy. The invention may be useful for gene therapy. The invention such as tumourigenesis, angiogenesis, apoptosis, inflammation, erythropoiesis or the biological response to hypoxia conditions erythropoiesis or the biological response to hypoxia conditions transportation, catecholamine synthesis, iron transport or nitric oxide synthesis The disease includes cancer, ischaemic conditions, reperfusion inflammatory conditions or wound healing. The present sequence is that of a disease related protein of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New substantially purified polypeptide, useful for diagnosing or treating a hypoxia-regulated condition, such as cancer, ischemia, reperfusion injury, retinopathy, pre-eclampsia, atherosclerosis, inflammation, or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                g
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                Mundy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 114; DB 7; Length 660; 100.0%; Pred. No. 5e-09; ive 0; Mismatches 0; Indels C
                                                                                                                                                                                                                                                                                                                                                                                                                                                Naylor S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                Ward NR, Harris RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 25; SEQ ID NO 9; 424pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                 (OXFO-) OXFORD BIOMEDICA UK LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity 100.
Les 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                              Kingsman SM, White J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2003-290046/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB; ADD18579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        wound healing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
8
```

RESULT 42

셤

ö

Gaps

ö

100 PRCGNPDVANYNFFPRKPK 118

셤

ò

1 PRCGNPDVANYNFFPRKPK 19

19; Conservative

Best Local Similarity

Matches

```
contribute disease or arthritides. The method comprises occurining an autonomune disease or arthritides. The method comprises occuration agene expression using that that results in a gene expression signature to diagnose or analyse the autoimmune disease or arthritides in the patient, where gene expression of at least 60% of the genes correlates with that of the gene signature. The invention further comprises: a treatment of rheumatoid arthritis; identification of the genes for targeting in the treatment of rheumatoid arthritis in a mammal other than a mouse; diagnosis of rheumatoid arthritis; diagnosis or analyses of autoimmune disease or rheumatoid arthritis; screening the efficacy of a candidate drug in vitro for the treatment of collagendiduced arthritis, and reducing the symptoms associated with collagentinduced arthritis, and reducing the symptoms associated with collagentiduced arthritis, and reducing the symptoms are useful for arthrides and compositions of the present invention are useful for methods and compositions of the present invention are useful for fiscential arthritis, government disease caused by an infectious agent. This sequence represents a commune disease caused by an infectious agent. This sequence represents a protein sequence relating to the genes used in the analysis and treatment of autoimmune diseases or arthritides, such as an infections agent. This sequence is not shown and the specification. It has been supplied in an electronic format from
                                                                                                                                                                                                               autoimmune disease; arthritide; gene expression analysis; rheumatoid arthritis; collagen-induced; immunosuppressive; antirheumatic; antiarthritic; osteopethic; antigout; antiinflammatory; dermatological; immunomodulatory; lugus; ankylosing spondylitis; Fibrositis; fibromyalgia; osteoarthritis; gout; juvenile rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Diagnosing and analyzing autoimmune disease using gene expression profiles and microarray technology, useful for diagnosing and treating rheumatoid arthritis, lupus, fibrositis, osteoarthritis, fibromyalgia and
                                                                                                                                                                  Human matrix metalloproteinase 2 preproprotein, gelatinase A, 72kD type.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to a novel method for diagnosing and analysing autoimmune disease or arthritides. The method comprises obtaining a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (CHIL-) CHILDREN'S HOSPITAL MEDICAL CENT,
                           ADP65244 standard; protein; 660 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure, Page, 56pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31-OCT-2001; 2001US-0336220P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31-OCT-2002; 2002WO-US035433
                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Thorton SL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2003-712740/67.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENBANK; NP_004521.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                         #02003072827-A1
                                                                                                                                                                                                                                                                                                                                            immune; human
                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                     12-AUG-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hirsch R,
```

```
The present invention relates to the use of proteases to recruit stem cells from the niches they normally occupy. The invention is useful for recruiting adult stem cells for treating bone marrow failure disorder such as aplastic anaemia and myeloproliferative disorder such as multiple myeloma. The invention is also useful in gene therapy. The present sequence is human matrix metalloproteinase (MMP) protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Recruiting adult stem cells in an animal for treating aplastic anemia or multiple myeloma by administering a protease or its activator so that the stem cells can proliferate, self-renew, differentiate or mobilize to a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                              Protease; stem cell; bone marrow failure disorder; aplastic anaemia;
                                                                                                                                                                                                                          myeloproliferative disorder; multiple myeloma; gene therapy; human; matrix metalloproteinase; MMP; enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 114; DB 8; Length 660; 100.0%; Pred. No. 5e-09; ive 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human matrix metalloproteinase-2 (MMP2) protein.
                                                                                                                                                                                 Human matrix matalloproteinase 2 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; SEQ ID NO 3; 77pp; English.
                                                                                               ż
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADQ17097 standard; protein; 660 AA.
             100 PRCGNPDVANYNFFPRKPK 118
                                                                                              ADN07697 standard; protein; 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hattori K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100 PRCGNPDVANYNFFPRKPK 118
13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                         28-MAY-2003; 2003US-00447315.
                                                                                                                                                                                                                                                                                                                                                                                     28-MAY-2002; 2002US-0383658P
                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-SEP-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rafii S, Heissig B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2004-328523/30
                                                                                                                                                                                                                                                                                                                                                                                                                (RAFI/) RAFII S.
(HEIS/) HEISSIG B.
(HATT/) HATTORI K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB; ADN07698.
GENBANK; 11342666.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 660 AA;
                                                                                                                                                                                                                                                                                                US2004071687-A1
                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                     01-JUL-2004
                                                                                                                                                                                                                                                                                                                              15-APR-2004
                                                                                                                          ADN07697;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADQ17097;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Loc
Matches
                                                                   RESULT 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BXXXXX
                   셤
                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
```

ö

Gaps

ö

100.0%; Score 114; DB 7; Length 660; 100.0%; Pred. No. Se-09; ive 0; Mismatches 0; Indels (

Best Local Similarity 100 Matches 19; Conservative

Query Match

```
29-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADV68478
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                             The present invention provides peptides and compositions containing such peptides that are useful as agents to maintain healthy skin and to promote the condition of the skin. The invention is useful for increasing the amount of fibronectin in itssue. The invention is also useful for encouraging the maintenance and development of healthy skin, preventing and treating wrinkles and for treating wounds. The invention acts as vulnerary and dermatological agents. The present sequence is human matrix metalloproteinase. 2 (MMP2) protein. This sequence is used in the
                                                                                                                                                                                                                                                                     Composition used for preventing and treating wrinkles and treating wounds comprises peptide having sequence related to matrix metalloproteinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Protease; immune disorder; inflammation; musculoskeletal disease; dermatological disease; gastrointestinal disease; endocrine disease; metabolic disorder; cancer; hematological disease; cardiovascular disease; neurological disease; growth disorder; respiratory disease; genitourinary disease; growth disorder; respiratory disease; genitourinary disease; gynecological disorder; nutritional disorder; infection; cytostatic; gynecological disorder; nutritional disorder; infection; cytostatic; antiafilammatory; antiasthmatic; analgesic; antiarthritic; osteopathic; antidiabetic; nephrotropic; cardiovascular-gen.; immunosupressive; respiratory-gen.; antipsoriatic; antiallergic; dermatological; enzyme; hydrolysis.
          Fibronectin, healthy skin; wrinkle; wound, vulnerary; dermatological; human; matrix metalloproteinase; MMP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 114; DB 8; Length 660; 100.0%; Pred. No. 5e-09; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                      Example 1; SEQ ID NO 14; 60pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Protease-hydrolysed polypeptide #78.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADV90301 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                        metalloproteinase-2 (MMP2) protei
exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 FRCGNPDVANYNFFPRKPK 19
                                                                                                                           30-DEC-2002; 2002US-00335207.
                                                                                                                                                     30-DEC-2002; 2002US-00335207.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                            WPI; 2004-506456/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
les 19; Conserv
                                                                                                                                                                                                                  Malik S, Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 660 AA;
                                                                                                                                                                             (MALI/) MALIK S.
(QUIR/) QUIRK S.
                                                                         JS2004127421-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO2004113522-A1.
                                                   Homo sapiens
                                                                                                   01-JUL-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-MAR-2005
                                                                                                                                                                                                                                                                                               proenzyme
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADV90301;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADV90301
8
```

```
The invention relates to the use of a protease with defined specificity for the invention relates to the target substrate for preparing a medicament for the treatment of a specific disease related to the target substrate. The invention also relates to a pharmaceutical or diagnostic composition comprising one or diagnostically acceptable carriers, excipients and/or auxiliary agents, a method for cleaving a target substrate in vivo or in vitro comprising contacting the target substrate with a protease as cited in the use method for cleaving a target substrate in vivo or in vitro comprising contacting the target substrate with a protease as cited in the use mentioned, and a method for treatment of a disease in a patient connected with a specific target substrate and eliminates or the patient or a protease with defined specificity for the specific target substrate. The protease hydrolyzes the target substrate and eliminates or reduces one or more biological activities, physico-chemical properties of the target protein, and/or activates or increases one or more biological activities, physico-chemical properties of the target protein, and/or adds one or pharmacological properties of the target protein, and/or adds one or pharmacological properties of the target protein, and/or adds one or pharmacological activities, physico-chemical properties of the target protein. The protease may be administered to treat immune disorders, inflammatory disorders, cancers, hematological diseases, endocrine diseases, metabolic disorder, cancers, hematological diseases, generatourinary diseases, metabolic disorder, cancers, hematological diseases, generatourinary diseases, growth disorders, nutritional diseases, and infections. This sequence represents a polypeptide hydrolysed by a grown diseases or the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to the use of a protease with defined specificity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cell growth; pharmaceutical; cytostatic; metalloprotease 1 inhibitor; metalloprotease 2 inhibitor; metalloprotease 3 inhibitor; metalloprotease 4 inhibitor; metalloprotease 5 inhibitor; metalloprotease 6 inhibitor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Proteases with defined specificity for a target substrate useful for treating a specific disease related to the target substrate, such as cancer, asthma, diabetes, inflammatory disorders and psoriasis.
                                                                                                                                                                                                                                                                                                                                    Kettling U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; Score 114; DB 9; Length 660;
; Pred. No. 5e-09;
0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                 Haupts U, Koltermann A, Scheidig A, Voetsmeier C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human matrix metalloproteinase-2 protein SegID14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 43; SEQ ID NO 131; 250pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADV68478 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.08;
                                                                                                            2003EP-00025851,
2003EP-00025871,
                                                                         18-JUN-2003; 2003EP-00013819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.08;
18-JUN-2004; 2004WO-EP051173
                                                                                                                                                                                 11-FEB-2004; 2004EP-00003058
                                                                                                                                                                                                                                                               ÅĞ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity 100.
les 19; Conservative
                                                                                                                                                                                                                                                           (DIRE-) DIREVO BIOTECH
                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2005-057985/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 660 AA;
                                                                                                            LO-NOV-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-MAR-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADV68478;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       &&&&&&&&&&
```

Costigan M;

Befort K,

```
New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
                                                                                                                                                                                                                                                                           Claim 1; Page; 1017pp; English.
                                                       14-AUG-2001; 2001US-0312147P.
01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
                              14-AUG-2002; 2002WO-US025765.
                                                                                                               (GEHO ) GEN HOSPITAL CORP. (PARB ) BAYER AG.
                                                                                                                                                         Woolf C, D'urso D,
                                                                                                                                                                                     WPI; 2003-268312/26.
                                                                                                                                                                                                    GENBANK; P33436
   27-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 48
   용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                    This invention relates to a novel composition for inhibiting growth of chondrosarcoma cells comprising an amount of a peptide and a production chondrosarcoma cells comprising an amount of a peptide and a chondrosarcoma cells comprising an amount of a peptide and a compounds with a cytostatic activity acting as metalloprotease 1 inhibitors, metalloprotease 2 inhibitors, metalloprotease 3 inhibitors, metalloprotease 5 inhibitors, metalloprotease 9 inhibitors, metalloprotease 9 inhibitors, metalloprotease 10 inhibitors, metalloprotease 11 inhibitors, metalloprotease 11 inhibitors, metalloprotease 11 inhibitors, metalloprotease 12 inhibitors of metalloprotease 12 inhibitors, metalloprotease 13 inhibitors, composition is useful for decreasing and inhibiting the growth of chondrosarcoma cells which in turn inhibits in thibiting the growth of chondrosarcoma cells which in turn inhibits composition of a bone tumor or diminishes a size of a bone tumor, useful for treating chondrosarcomas and bone cancers. The present sequence is that of a human matrix metalloproteinse which may be used during the composition of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                A composition for decreasing and inhibiting the growth of chondrosarcoma cells, useful for treating chondrosarcomas and bone cancer, comprises a matrix metalloproteinase inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury; chronic constriction injury; CCI; spared nerve injury; SNI; Chung.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 114; DB 9; Length 660; 100.0%; Pred. No. 5e-09;
metalloprotease 8 inhibitor; metalloprotease 9 inhibitor; metalloprotease 10 inhibitor; metalloprotease 11 inhibitor; metalloprotease 12 inhibitor; metalloprotease 13 inhibitor; metalloprotease inhibitor; metalloprotease inhibitor; metalloprotease inhibitor; bone tumor; sarcoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                              Example 1; SEQ ID NO 14; 50pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rat Protein P33436, SEQ ID NO 8791.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADE62857 standard; protein; 662 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100 PRCGNPDVANYNPPPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                         20-JUN-2003; 2003US-00601059
                                                                                                                                                                                     20-JUN-2003; 2003US-00601059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                        WPI; 2005-047374/05
                                                                                                                                                                                                                                                            Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rattus norvegicus
                                                                                                                                                                                                                (YANG/) YANG S.
(QUIR/) QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO2003016475-A2.
                                                                                                 JS2004259802-A1
                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-JAN-2004
                                                                                                                              23-DEC-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADE62857;
                                                                                                                                                                                                                                                            Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADE62857
   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
```

```
The invention discloses a composition comprising two or more isolated rat or human polynucleotides or a polynucleotide which represents a fragment, and enrichtive or allelic variation of the nucleic acid sequence. Also claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a arrangle sequence that increases or decreases the expression of the polynucleotide sequence that increases or decreases the expression of the polynucleotide sequence comprision of a polynucleotide sequence which is differentially a subjected to pain, a method for identifying a compound which regulates the expression of a polynucleotide sequence which is differentially compound that regulates the activity of one or more of the compound that regulates the activity of one or more of the compound confidentifying a compound or small molecule that regulates the activity of one or more of the polypeptides given in the activity in an animal of one or more of the polypeptides given in the specification, a method for identifying a compound useful in treating computates its activity is useful for preparing a medicament for treating conjugates its activity is useful for preparing a medicament for treating colypeptides or their antibodies. The polynucleotide or the compound injury (CCI) and spared nerve injury (SNI) in an animal (e.g. sphale sequence presented is a rat protein (shown in Table 2 of the reapph). The sequence presented is a rat protein (shown in Table 2 of the sequence data for this patent did not form part of the printed conjuding the patent did not form part of the printed conjuding patent did not form part of the printed conjuding patent did not form will not form will not specification, but was obtained in electronic form directly from WIPO at the printed conjuding patent did not form the printed conjuding patent did not form patent did not form directly from WIPO at the polynucleotid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury; chronic constriction injury; CCI; spared nerve injury; SNI; Chung.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 114; DB 7; Length 662; 100.0%; Pred. No. 5e-09; Live 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rat Protein P33436, SEQ ID NO 11945.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADD46270 standard; protein; 662 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 662 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADD46270;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADD46270
ID ADD4
XX ADD4
XX ADD4
XX BD1
XX S9-J
XX XX RAt
XX RAT
XX RAT
XX RAT
XX XX CAPC
```

۳,

```
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity 100.
                                                                                                                                                                                                                                                                                                     (SCRI ) SCRIPPS RES INST
                                                                                                                                                                                                                                                                                                                                  Cheresh DA;
                                                                                                                                                                                                                                                                                                                                                             WPI; 1998-032334/03.
                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; AAV03995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 663 AA;
                                                                                                                                                                                                                                30-MAY-1997;
                                                                                                                                                                                                                                                           31-MAY-1996;
                                                                                                                                                                                                                                                                          31-MAY-1996;
                                                                                                                                                                         WO9745137-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-DEC-2004
                                                                                                                                                                                                    04-DEC-1997
                                                                                                                                                                                                                                                                                                                                  Brooks P,
                                                                                   Gallus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADT05976;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                               Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADT05976
  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention discloses a composition comprising two or more insurated rac derivative or allelic variation of the nucleic acid sequence. Also claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a kit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polynucleotide sequence that increases or decreases the expression of the polynucleotide sequence that is differentially expressed in neuronal tissue of a first animal completed to pain, a method for identifying a compound which regulates the expression of the polynucleotide sequence which is differentially expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the polynucleotides, a method for producing a pharmaceutical composition, a method for identifying a compound that regulates the activity of one or more of the polynucleotides, a method for identifying a compound that regulates the activity in an animal of one or more of the polypeptides given in the specification, a method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more polynucleotides or their antibodies. The polynucleotide or the compound that is mediates its activity is useful for preparing a medicament for treating pain (e.g. spinal segmental nerve injury (SNI)) in an animal (e.g. gene injury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene therapy). The sequence presented is a rat protein (shown in Table 2 of the specification) which is differentially expressed during pain. Note: the specification) but was obtained in electronic form directly from WIPO at a specification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
                                                                                                                                                                                                                                                                                                                                                                rat
                                                                                                                                                                                                                                                                                        New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
                                                                                                                                                                                                                                                                                                                                                             invention discloses a composition comprising two or more isolated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 7; Length 662;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 114; DB 7; Leugua C. 100.0%; Pred. No. 5e-09; Mismatches 0; Indels
                                                                                                                                                                                                                 Costigan M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chicken matrix metalloproteinase-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAW41111 standard; protein; 663 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19
                                                                                                                                                                                                                 Befort K,
                                                                                                                                                                                                                                                                                                                                Claim 1; Page; 1017pp; English.
                                                                                                             14-AUG-2001; 2001US-0312147P.
01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 PRCGNPDVANYNFFPRKPK
                                                                                  14-AUG-2002; 2002WO-US025765
                                                                                                                                                                      (GEHO ) GEN HOSPITAL CORP. (FARB ) BAYER AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                 Woolf C, D'urso D,
                                                                                                                                                                                                                                            WPI; 2003-268312/26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
es 19; Conserv
Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 662 AA;
                            WO2003016475-A2
                                                                                                                                                                                                                                                           GENBANK; P33436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-JUN-1998
                                                       27-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW41111;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAW41111
ID AAW
XX
AC AAW
XX
DT 08.
g
```

```
This protein sequence comprises chicken matrix metalloproteinase-2 (chwMP-2). The invention relates to the discovery that angiogenesis is mediated by the specific vitronectin receptor alpha-v beta-3, and that inhibition of alpha-v beta-3 function inhibits angiogenesis. Claimed antagonists of alpha-v beta-3 include C-terminal fragments (see AAW1083-94) of human or chicken MMP-2. An MMP-2 fragment can be obtained by recombinant DNA methods, such as PCR amplification of the chwMP-2 coding region, cloning into e.g. pGEX-3X, and expression in E. coli as a fusion protein with glutathione-s-transferases. The antagonists can be used to inhibit angiogenesis in inflammed tissue (for treatment of arthritis or rheumatoid arthritis), in solid tumours or metastases (particularly to induce regression or inhibit tumour growth), and in ocular disorders such as diabetic retinopathy and macular degeneration, as well as to treat restenosis (all claimed)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Packaging material containing polypeptide antagonist of alphav, beta3 integrin - used for inhibition of angiogenesis, and for treating tumours,
Matrix metalloproteinase-2; MMP-2; chMMP-2; chicken; Angiogenesis; inhibitor; antagonist; integrin alpha-v beta-3; vitromectin receptor; rheumatoid arthritis; tumour; metastasis; diabetic retinopathy; macular degeneration; restenosis; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Angiogenesis inhibitor; integrin alpha-V beta-3 antagonist; vitronectin receptor antagonist; neovascularisation; cancer; tumour; inflammation; rheumatoid arthritis; retina; diabetic retinopathy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chicken matrix metalloprotease (MMP-2) version #1, SEQ ID NO:30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 114; DB 2; Length 663; 100.0%; Pred. No. 5e-09; ive 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 163-167; 234pp; English.
                                                                                                                                                                                                                                                                                                                                                                       1. .26
/label= Sig_peptide
                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADT05976 standard; protein; 663 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRCGNPDVANYNPPPRKPK 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 PRCGNPDVANYNPPPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          integrin - used for inhibition inflammation, eye diseases etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         96US-0018733P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97WO-US009158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96US-0015869P
```

```
The invention relates to a method of inhibiting angiogenesis in a tissue by the administration of a composition comprising an organic peptidomiment cantagonist of integrin alpha-V beta-3 virtonectin receptor). The integrin alpha-V beta-3 relations containing it are useful for inhibiting angiogenesis in a variety of medical conditions. The antagonist may be used to induce the regression of solid tumours or solid tumour metastases; to inhibit the growth of solid tumours undergoing neovascularisation; to treat inflamed tissue in which neovascularisation in retinal tissue (e.g., in rheumatoid arthritis); to treat neovascularisation in retinal tissue (e.g., in in diabetic retinopathy); to treat restenosis in a tissue by inhibiting smooth muscle cell migration (such as that which occurs following angioplasty); and to reduce the blood supply to a tissue required to support new growth of the tissue. The present sequence represents chicken matrix metalloprotease 2 (WMP-2, gelatinase) used in an example of the invention. Note: The
restenosis; smooth muscle cell migration; angioplasty; antiangiogenic; cytostatic; antiinflammatory; antiarthritic; antirheumatic; ophthalmological; antidiabetic; vasotropic; muscular-gen.; peptidomimetic; matrix metalloprotease 2; MMP-2; progelatinase; chicken;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Administration of composition comprising organic peptidomimetic alpha-v beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
                                                                                                                                                                                                                                               'note= "This section is Asp-Ser-His-Phe in the chicken
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "Corresponds to residues 549-637 of the mature protein (see SEQ ID NO:28)"
                                                                                                                                                                                                                                                                                              mature
                                                                                                                                                                                                                                                                                                                                                             mature
                                                                                                                                                                                                                                                                                                                                                                                                          mature
                                                                                                                                                                                                                                                                                                                                                                                                                                                          mature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mature
                                                                                                                                                                                                                                                                                                                                                            the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the
                                                                                                                                                                                                                                                                                                                                                                                                          the
                                                                                                                                                                                                                                                                                                                                                                                                                                                         of the
                                                                                                                                                                                                                                                                                            residues 410-637 of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  to residues 516-637 of NO:27)"
                                                                                                                                                                                                                                                                                                                                                            to residues 445-637 of
                                                                                                                                                                                                                                                                                                                                                                                                       /note= "Corresponds to residues 445-552 of protein (see SEQ ID NO:26)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                         445-518
                                                                                                                                                                                                                                                                                                                                                                                                                                                       to residues
NO:25)"
                                                                                                                                                                                                                                                                                                                                                                       protein (see also SEQ ID NO:24)
                                                                                                                                                                                                                                                                            436. .663
/note= "Corresponds to resid
protein (see SEQ ID NO:23)"
                                                                                                                                                                                                                                                                                                                          471. .663
/label = Hemopexin_domain
                                                                                                                                                                                                                                                             MMP-2 shown in figure 7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 2; SEQ ID NO 30; 184pp; English
                                                                                                                                                                 .. .26
'label= Signal_peptide
                                                                                                                                                                                                                /label= Mature_MMP-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note= "Corresponds
protein (see SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note= "Corresponds
protein (see SEQ ID
                                                                                                                                                                                                                                                                                                                                                            □ Corresponds
                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26-MAR-2004; 2004WO-US009321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-MAR-2003; 2003US-00402212.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .663
                                                                                                                                                                                                 .663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (SCRI ) SCRIPPS RES INST
                                                                                                                                                                                                                                                                                                                                                            /note
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cheresh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2004-737508/72.
N-PSDB; ADT05975.
                                                                                                                                                                                                                             Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO2004087057-A2.
                                                                                              Gallus gallus.
Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Brooks PC,
                                                                                                                                                              Peptide
                                                                                                                                                                                               Protein
                                                                     enzyme.
                                                                                                                                                                                                                                                                                                                          Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                        Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Region
                                                                                                                                                                                                                                                                            Region
                                                                                                                                                                                                                                                                                                                                                                                         Region
```

```
ö
                                                                                                                                                                                                                                                                                                     Anglogenesis inhibitor; integrin alpha-V beta-3 antagonist; vitronectin receptor antagonist; neovascularisation; cancer; tumour; inflammation; rheumatoid arthritis; retina; diabetic retinopathy; restenosis; smooth muscle cell migration; angioplasty; antiangiogenic; cytostatic; antiinflammatory; antiarthritic; antirheumatic; ophthalmological; antidiabetic; vasotropic; muscular-gen.; peptidomimetic; matrix metalloprotease 2; MMP-2; progelatinase; chicken;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note= "This section is Ser-His-Phe-Asp in the chicken MMP-2 shown in SEQ ID NO:30"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note= "Corresponds to residues 549-637 of the mature protein (see SEQ ID NO:28)"
                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the
present sequence differs between residues 202-205 compared to t
sequence also described as chicken MMP-2 shown in figure 7A-7C
(ADT05995).
                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               to residues 516-637 of the NO:27)"
                                                                               Length 663;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note= "Corresponds to residues 410-637 of protein (see SEQ ID NO:23)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          οĘ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õŧ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              oŧ
                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           to residues 445-518 NO:25)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         445-637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note= "Corresponds to residues 445-552 protein (see SEQ ID NO:26)"
                                                                                                                                                                                                                                                                                  Chicken matrix metalloprotease (MMP-2) version #2.
                                                                               DB 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | = Hemopexin_domain
= Corresponds to residues
in (see also SEQ ID NO:24)
                                                                              Score 114; DB 8;
Pred. No. 5e-09;
; Mismatches (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'note= "Encoded by TCC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'note= "Encoded by CAT"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note= "Encoded by TTT"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note= "Encoded by GAT"
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. .26
/label= Signal_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /label= Mature_MMP-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note= "Corresponds
protein (see SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note= "Corresponds
protein (see SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                             ADT05995 standard; protein; 663 AA.
                                                                                                                                         ö
                                                                                                                             1 PRCGNPDVANYNFFPRKPK 19
                                                                               100.0%;
                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . 663
                                                                            Query Match
Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   202. .205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           . 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              label/
                                                         Sequence 663 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO2004087057-A2
                                                                                                                                                                                                                                                                                                                                                                                                                  Gallus gallus.
                                                                                                                                                                                                                                                          30-DEC-2004
                                                                                                                                                                                                                                    ADT05995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Region
                                                                                                                                                                                       RESULT 51
                                                                                                                                                                                                                          8$3333
                                                                                                                                                  셤
                                                                                                                              ò
```

```
The present invention describes isolated polynuclectide sequences (I), which encode polypeptides (II) with biological activity. Also described:

(I) a vector comprising (I); (2) an expression vector comprising (I); (3) a host cell genetically engineered to comprise (I) which is operatively associated with a regulatory sequence that modulates expression of (I) in comprising the polypeptide of (4) and a carrier; (6) an antibody directed against the polypeptide of (4) and a carrier; (6) an antibody directed against the polypeptide of (4); (7) detecting (I) or the polypeptide of (4) in a sample; (8) identifying a compound that binds to the polypeptide of (4) in a sample; (9) producing the polypeptide of (4); and (10) a collection of polymucleotides comprising at least one of the polymucleotide sequences (I) can be used as hybridisation probes, collegences or primers, for chromosome or gene mapping, for the recombinant production of proteins, and for generating antisense DNA or RNA. The present sequence represents a human contig polypeptide sequence, which is used in an example from the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        vulnerary; CNS-gen.; gene therapy; diagnostic; forensic; mapping; DNA purification; protein purification; osteoarthritis; antiarthritic; posteogathic; musculoskeletal disease; osteopathris; entiant disease; periodontal disease; antiinflammatory; mouth disease; burns; injury; peripheral neuropathy; Alzheimers disease; neuroprotective; nootropic; degeneration; parkinsons disease; antiparkinsonian; neurological disease; cerebrovascular disease; acebrorocective; vasotropic; cardiovascular disease; autoimmune disease; immunosuppressive; immune disorder; viral infection; virucide; infection; cancer;
                                                                                                                                                                                         New polynucleotides, useful as hybridization probes, oligomers or primers, for chromosome or gene mapping, for the recombinant production of proteins, and for generating antisense DNA or RNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 708;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ouery Match 100.0%; Score 114; DB 7; Best Local Similarity 100.0%; Pred. No. 5.4e-09; Matches 19; Conservative 0; Mismatches 0;
                                                                       Ma Y;
                                                                                                                                                                                                                                                                                                  Example 3; SEQ ID NO 2921; 571pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel human polypeptide SEQ ID NO 1664.
                                                                       Weng G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AEA20970 standard; protein; 708 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          148 PRCGNPDVANYNFFPRKPK 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-MAR-2004; 2004WO-US007412.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-MAR-2003; 2003US-00389559
                                                                       Yang Y, Wang Z,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11-AUG-2005 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cytostatic; neoplasm.
                                                                                                                       WPI; 2003-876918/81.
N-PSDB; ADF60102.
                     (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 708 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  402005049806-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-JUN-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AEA20970;
                                                                       Tang YT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AEA20970
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to a method of inhibiting angiogenesis in a tissue by the administration of a composition comprising an organic peptidomimetic antagonist of integrin alpha-V bata-3 (vitronectin receptor). The integrin alpha-V beta-3 artagonist and compositions containing it are useful for inhibiting angiogenesis in a variety of medical conditions. The antagonist may be used to induce the regression of solid tumours or solid tumours or solid tumours or solid tumours or solid tumours containing in retains (e.g., in rheumatoid arthritis); to treat neovascularisation in retinal tissue (e.g., in diabetic retinopathy); to treat restenosis in a tissue by inhibiting smooth muscle cellungation (supply to a tissue required to support new growth of the tissue. The present sequence represents chicken matrix metalloprotease 2 (MMP-2, gelatinase) used in an example of the invention. Note: The present sequence residues 202-205 compared to the sequence also described as chicken MMP-2 shown in the sequence listing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   biological activity; genetic engineering; hybridisation probe; oligomer;
primer; chromosome mapping; gene mapping; recombinant protein production;
                                                                                                                                                                                                                                                                                                                                                     Administration of composition comprising organic peptidomimetic alpha-v beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 114; DB 8; Length 663; 100.0%; Pred. No. 5e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human contig polypeptide sequence SEQ ID NO:2921.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 2; Fig 7A-C; 184pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADF60554 standard; protein; 708 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97 PRCGNPDVANYNPPPRKPK 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                    28-MAR-2003; 2003US-00402212.
                                                                    26-MAR-2004; 2004WO-US009321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09-AUG-2002; 2002WO-US025485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-AUG-2001; 2001US-0311261P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19; Conservative
                                                                                                                                                                         (SCRI ) SCRIPPS RES INST
                                                                                                                                                                                                                        Cheresh DA;
                                                                                                                                                                                                                                                                        WPI; 2004-737508/72.
N-PSDB; ADT05994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 663 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO2003080795-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                     14-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-0CT-2003
                                                                                                                                                                                                                           Brooks PC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (ADT05976)
```

ADF60554;

g

human.

ö

Gaps

; 0

30-MAR-2001; 2001WO-US008631 31-MAR-2000; 2000US-00540217 23-AUG-2000; 2000US-00649167

WO200175067-A2

11-OCT-2001

Tang YT;

Drmanac RT, Liu C, WPI; 2001-639362/73. N-PSDB; AAS88186.

(HYSE-) HYSEQ INC.

```
The invertion describes a new isolaters polymeracioning a comparison with biological activity comprising: a nucleotide sequence of contributions; or a nucleotide sequence of (i) under stringent hybridization conditions; or a nucleotide sequence of (i), under stringent hybridization conditions; or a nucleotide sequence of (i), also described are: a(n) (expression) vector comprising (i); a host cell genetically engineered to comprise (I) operatively, associated with a regulatory sequence that modulates expression of the polymucleotide in the host cell; an isolated polymetide comprising a sequence of SEQ ID NOS: 568-1134 (fully defined), where the polymetide comprising a sequence of SEQ ID NOS: 568-1134 (fully defined), where the polymetide comprising the polymetide encoded by (I); or a polymetide of (3); and a carrier; an antibody directed against the polymetide of (3); and a carrier; an antibody directed against the polymetide of (3); and a carrier; an antibody directed against the polymetide of (3); and a collection of polymetide of polymetide of (3); and a collection of polymucleotides, where the collection comprising of at collection of polymucleotides, where the collection comprising of at class one of SEQ ID NOS: 1-567. (I) is a polymetide with biological activity, which comprises any of the amino acid sequence of SEQ ID NOS: 1-567 encoding a polymetide with biological activity, which comprises any of the amino acid sequence of SEQ ID NOS: 1-567 encoding a polymetic of sequences of SEQ ID NOS: 1-567 encoding a polymetic of sequences of sequences and methods are useful in diagnostics, forensid; and generic of the mapping, in identifying of mutations responsible for generic disorders or chief raits, in assessing biodiversity, and for producing ageneric or sequences. The mapping of the man products dependent on DNA and encode and agenerating or dependent or producing ageneration or produces and agenerating or produc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              composition and method are useful for treating a disease or disorder, e.g. osteoporosis, osteoarthritis, periodontal disease, burns, CNS and peripheral disease, Alzheimer's disease, Parkinson's disease, stroke, autoimmune disorders, viral infection, or cancer. This is the amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New polynucleotide encoding a polypeptide with biological activity, useful for treating a disease or disorder, e.g. osteoarthritis, burns, CNS and peripheral disease, stroke, autoimmune disorders, viral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       invention describes a new isolated polynucleotide (I) encoding a
                                                                                                                       Zhou P, Ma Y;
Goodrich R, Chen R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sequence of a novel polypeptide of the invention
                                                                                                                Tang TY, Wang J, Wang ZW, Zhang J, Ren F,
Ghosh M, Xue A, Asundi V, Zhao Q, Wang D,
Wehrman T, Weng G, Boyle B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sxample 3; SEQ ID NO 1664; 500pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or cancer
                                                                                                                                                                                                                                                                                                                                                                           WPI; 2005-417730/42.
(NUVE-) NUVELO INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  infection,
```

```
ö
                                                                                                                                                                     Gaps
                                                                                                                                                                    .
0
                                                                                                                                                              100.0%; Score 114; DB 9; Length 708; 100.0%; Pred. No. 5.4e-09;
                                                                                                                                                                    0; Indels
                                                                                                                                                                    Mismatches
                                                                                                                                                                    ö
                                                                                                                                                                           1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                          Ouery Match
Best Local Similarity 100.00
Best Local 19; Conservative
                                                                                                                                                       Sequence 708 AA;
ò
```

ABG23999 standard; protein; 1330 AA. 148 PRCGNPDVANYNFFPRKPK 166 RESULT 54 요

Human; chromosome mapping; gene mapping; gene therapy; forensic; food supplement; medical imaging; diagnostic; genetic disorder. Novel human diagnostic protein #23990.

(first entry)

18-FEB-2002

ABG23999

Ното варіепв

```
The invention relates to isolated polymucleotide (I) and polypeptide (II) sequences. (I) is useful as hybridisation probes, polymerase chain creaction (PRR) primers, oligomers, and for chromosome and gene mapping, and in recombinant production of (II). The polymucleotides are also used in diagnostics as expressed sequence tags for identifying expressed control of (II) are to treat disease states involving (II). (II) is cativity of (II) or to treat disease states involving (II). (II) is useful for generating antibodies against it, detecting or quantitating a colympostide in tissue, as molecular weight markers and as a food of sites expressing (II). (I) and (II) are useful for treating disorders (involving aberrant protein expression or biological activity. The colony-peptide and polymucleotide sequences have applications in diagnostics, forsensics, gene mapping, identification of mutations creponable for genetic disorders or other tratte to assess blodiversity and to produce other types of data and products dependent on DNA and amino acid sequences of the invention. Note: The sequence data for this camino acid sequences of the invention. Note: The sequence data for this electronic format directly from WIPO at the parent did not appear in the printed specification, but was obtained in colony to the control of the colony of the sequences of the invention of the colony 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                          New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 114; DB 4; Length 1330; 100.0%; Pred. No. 1.1e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 20; SEQ ID NO 54358; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Search completed: February 21, 2006, 18:13:21
Job time : 195.333 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRCGNPDVANYNFFPRKPK 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1330 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         biodiversity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
```

This Page Blank (uspto)

US-08-994-689C-21 US-08-704-711h-21 US-08-448-499-14 US-09-391-104-22 US-09-391-104-22 US-09-949-016-6224 US-09-949-016-10877 US-09-949-016-10877 US-08-94-689C-1 US-08-94-689C-1 US-08-94-891-313-1 US-08-21-220-20 US-08-21-220-20 US-08-21-220-20 US-08-391-104-21 US-08-391-104-21 US-08-391-104-21 us-10-601-059-11.rai

ALIGNMENTS

US-09-949-002-342

Sequence 15, Appl Sequence 342, App

JOSTON BEAUTON SEQUENCE 11, Application US/10153185

Patent No. 6906036

GENERAL INPORMATION:

JAPPLICANT: Quirk, Stephen

APPLICANT: Quirk, Stephen

TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds

FILE REFERENCE: 1443.034018;

CURRENT APPLICATION NUMBER: US/10/153,185

CURRENT FILING DATE: 2002-08-13

PRIOR FILING DATE: 2001-02-1

PRIOR FILING DATE: 2001-08-16

NUMBER OF SEQ ID NOS: 20

SOFTWARE: FASESEQ for Windows Version 4.0

SEQ ID NO 11

LENGTH: 19

TYPE: PRI

COGANISM: Homo sapiens

US-10-153-185-11 US-10-153-185-11

ö Length 19; Indels Query Match 100.0%; Score 114; DB 2; Best Local Similarity 100.0%; Pred. No. 1.4e-11; Matches 19; Conservative 0; Mismatches 0;

ö

Gaps

PRCGNPDVANYNFPPRKPK 19 1 PRCGNPDVANYNFFPRKPK 19 g ŝ

US-10-13-185-15

| Sequence 15, Application US/10153185
| Patent No. 6906036
| GENERAL INPOWMATION:
| APPLICANT: Quirk, Stephen
| APPLICANT: Quirk, Stephen
| TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds:
| PILE REPERENCE: 1443.034018:
| CURRENT APPLICATION WUMBER: US/10/153,185
| CURRENT FILING DATE: 2002-08-13
| PRIOR PELING DATE: 2001-12-21
| PRIOR FILING DATE: 2001-12-21
| PRIOR PILING DATE: 2001-08-16
| WUMBER OF SEQ ID NOS: 20
| SOFTWARE: FastsEQ for Windows Version 4.0

February 21, 2006, 08:00:29; Search time 43.5 Seconds (without alignments) 36.111 Million cell updates/sec

Sequence 21, Appl Sequence 14, Appl Sequence 22, Appl Sequence 6224, Ap Sequence 14, Appl Sequence 14, Appl Sequence 1, Appl Sequence 1, Appl Sequence 20, Appl

GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd.

Copyright

OM protein - protein search, using sw model

Run on:

114 1 PRCGNPDVANYNFFPRKPK 19 US-10-601-059-11

Perfect score:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table: Sequence:

572060 seqs, 82675679 residues Searched:

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100%

Listing first 45 summaries

Issued Patents AA: Database :

1: /cgn2_6/prodata/1/iaa/5_COMB.pep:*
2: /cgn2_6/prodata/1/iaa/6_COMB.pep:*
3: /cgn2_6/prodata/1/iaa/H_COMB.pep:*
4: /cgn2_6/prodata/1/iaa/PcTUS_COMB.pep:*
5: /cgn2_6/prodata/1/iaa/RE_COMB.pep:*
6: /cgn2_6/prodata/1/iaa/RE_COMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description Query Match Length DB Result

Sequence 18, Sequence 18, Sequence 19, Sequence 89, Sequence Seq US-10-153-185-11 US-10-153-185-15 US-10-153-185-15 US-08-448-489-17 US-09-689-730-17 US-09-521-220-18 US-09-391-104-19 US-09-391-104-19 US-09-949-016-6512, US-09-949-016-6512, US-09-17-254-6 US-09-131-999C-4639 US-09-513-999C-4639 US-09-313-185-14 US-09-313-186-16

Sequence Sequence Sequence Sequence 3 Sequence

US-10-153-185-4

4639, Ap 463, Ap 463, Ap 6, Appli 6, Appli 11, Appli 12, Appli 13, Appli 13, Appli 15, Appli 15, Appli 44, Appli

```
RESULT 6
                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
    ઠે
                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: SEIKI, Motcharu
APPLICANT: SEIKI, Motcharu
APPLICANT: SHINAGAMA, Akira
APPLICANT: SHINAGAMA, Akira
TITLE ON THIVENITON: NOVEL METALLOPROTEINASE AND ENCODING DNA THEREFOR
FILE REFERENCE: 55-290P
CURRENT APPLICATION NUMBER: US/08/448,489
CURRENT FILING DATE: 1995-06-07
NUMBER OF SEQ ID NOS: 19
SOFTWARE: PATHING TONS: 19
LENGTH: 631
TYPE: PRT
ORGANISM: Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; OTHER INFORMATION: Description of Unknown Organism: Known Member of ; OTHER INFORMATION: Matrix Metalloproteinase Family US-08-448-489-17
                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ó
                                                                                                                                                                                                                                                                                          Sequence 2, Application US/10153185

Sequence 2, Application US/10153185

Parent No. 6906036

GENERAL INFORMATION:

APPLICANT: Walik, Stephen

APPLICANT: Walik, Schail

TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds

FILE REFERENCE: 1443.034US1

CURRENT APPLICATION NUMBER: US/10/153,185

CURRENT FILING DATE: 2002-08-13

PRIOR APPLICATION NUMBER: US 10/032,376

PRIOR APPLICATION NUMBER: US 60/312,726

PRIOR FILING DATE: 2001-08-16

NUMBER OF SEQ ID NOS: 200

SOFTWARE: PSECEED FOR Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
100.0%; Score 114; DB 2; Length 631;
Best Local Similarity 100.0%; Pred. No. 7.3e-10;
Matches 19; Conservative 0; Mismatches 0; Indels (
                                                                                                  Length 43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 44;
                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 100.0%; Score 114; DB 2; Best Local Similarity 100.0%; Pred. No. 3.6e-11; Matches 19; Conservative 0; Mismatches 0;
                                                                                                100.0%; Score 114; DB 2; 100.0%; Pred. No. 3.5e-11;
                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 17, Application US/08448489; Patent No. 6184022; GENERAL INFORMATION:
                                                                                                                                     6
                                                                                                                                                                                                  24 PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24 PRCGNPDVANXNFFPRKPK 42
                                                                                                                                                                              1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                     19; Conservative
; LENGTH: 43
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           , ORGANISM: Homo sapiens
US-10-153-185-2
                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 4
US-08-448-489-17
                                                                                                                                                                                                                                                                            RESULT 3
US-10-153-185-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 44
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                       Matches
                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                ઠ
```

```
ö
                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: SEIKI, MOCCharu
APPLICANT: SATO, Hizoshi
APPLICANT: SHINAGAWA, Akira
TITLE OF INVENTION: NOVEL METALLOPROTEINASE AND ENCODING DNA THEREFOR
TITLE REFERENCE: 55-290P
TITLE REFERENCE: 55-290P
CURRENT APPLICATION NUMBER: US/09/689,730
CURRENT FILING DATE: 2000-10-13
PRIOR PELICATION NUMBER: US/08/448,489
PRIOR PLICATION NUMBER: US/08/448,489
PRIOR PLICATION NUMBER: US/08/448,489
SPIOR FILING DATE: 1995-06-07
NUMBER OF SEQ ID NOS: 19
SOFTWARE RATERIL Ver. 2.0
SEQ ID NO 17
LENGTH: 531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 18, Application US/08704711A

Sequence 18, Application US/08704711A

Patent No. 6114159

GENERAL INFORMATION:

APPLICANT: WILL, HOTE

APPLICANT: HINZMANN, Bernd

TITLE OF INVENTION: DNA SEQUENCES FOR MATRIX

TITLE OF INVENTION: METALLOPROTEASES, THEIR PRODUCTION AND USE

NUMBER OF SEQUENCES: 2

CORRESPONDENCE ADDRESS:

STREET: 3000 K Street, N.W., Suite 500

CITY: Washington

STATE: D.C.

COUNTRY: USA

ZIP: Z0007-5109

COMPUTER READABLE FORM:

MEDLUM TYPE: Ploppy disk

MEDLUM TYPE: Ploppy disk

COMPUTER PRODUCTION

COMPUTER READABLE FORM:

MEDLUM TYPE: Ploppy disk

COMPUTER TEADABLE FORM:

MEDLUM TYPE: PLOPPY disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; OTHER INFORMATION: Description of Unknown Organism: Known Member of ; OTHER INFORMATION: Matrix Metalloproteinase Family US-09-689-730-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 631;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TITE: FLOPPY GIBK
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Ralease #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/704,711A
FILLING DATE: 20-NOV-1996
CLASSIFICATION DATA:
APPLICATION NUMBER: WO PCT/DE95/00357
FILING DATE: 17-MAR-1995
PRIOR APPLICATION NUMBER: DE 4438838.1
FILING DATE: 21-OCT-1994
PRIOR APPLICATION NUMBER: DE 4409663.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.0%; Pred. No. 7.3e-10;
Matches 19; Conservative 0; Mismatches 0;
                                                                                                                                       RESULT 5
US-09-689-730-17
; Sequence 17, Application US/09689730
; Patent No. 6825024
                             71 PRCGNPDVANYNFFPRKPK 89
1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         71 PRCGNPDVANYNFFPRKPK 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-704-711A-18
```

```
Query Match
100.0%; Score 114; D
Best Local Similarity 100.0%; Pred. No. 7.6
Matches 19; Conservative 0; Mismatches
      TOPOLOGY: linear sequence DESCRIPTION: SEQ ID NO: 18: US-09-521-220-18
                                                                                                                                                                                                                                                                                                           Sequence 19, Application US/09391104
Patent No. 6399371
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-917-254-89

Sequence 89, Application US/09917254

Patent No. 6703204

; GENERAL INFORMATION:
                                                                                                                                                                                                   100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                          1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 PRCGNPDVANYNFFPRKPK 19
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Homo sapiens
US-09-391-104-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
CRGANISM: Homo Sapiens
US-09-917-254-89
                                                                                                                                                                                                                                                                                             US-09-391-104-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                            ò
                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AL INFORMATION.
APPLICANT: WILL, HOTEL
TITLE OF INVENTION: DNA SEQUENCES FOR MATRIX
METALLOPROTEASES, THEIR PRODUCTION AND USE
                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                  Length 660;
                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                    Score 114; DB 2;
Pred. No. 7.6e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 22
CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner
STREET: 3000 K Street, N.W., Suite 500
CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 08/704,711
PILING DATE: CUNKNOWN>
APPLICATION NUMBER: DE 4438838.1
FILING DATE: 21-0CT-1994
APPLICATION NUMBER: DE 4409663.1
FILING DATE: 17-MAR-1994
ATTORNEY/AGENT INFORMATION:
NAME: GRANADOS, PATTICIA D.
REGISTRATION NUMBER: 33,683
REFERENCE/DOCKET NUMBER: 26083/124
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/521,220
FILING DATE: 08-Mar-2000
CLASSIFICATION: <Unknown>
                               NAME: GRANADOS, Patricia D.
REGISTRATION NUMBER: 33,683
REPERENCE/POCKET NUMBER: 26083/124
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)672-5300
TELEFAX: (202)672-5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-MAR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: D.C.
COUNTRY: USA
ZIP: 20007-5109
COMPUTER READMALE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 18, Application US/09521220
Patent No. 6399348
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ 1D NO: 18:
SEQUENCE CHARACTERISTICS:
LENGTH: 660 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                        100 PRCGNPDVANYNPFPRKPK 118
                                                                                                                              TELEFAX: (202)672-5399

TELEX: 904136

INFORMATION FOR SEQ ID NO: 18:
SEQUENCE CHARACTERISTICS:
LENGTH: 660 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: Innear
US-08-704-711A-18
                                                                                                                                                                                                                                                                                                                                                                                                                   1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE: (202)672-53
TELEFAX: (202)672-5399
                                                                                                                                                                                                                                                                                                                                    100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
              ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 7
US-09-521-220-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                    Gaps
                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ô
                                                                                                                                                                                                                                                                                                                                             APPLICANT: Abbott Laboratories
APPLICANT: Falduto, Michael T.
APPLICANT: Falduto, Michael T.
APPLICANT: Magnuson, Scott R.
TYLLE OF INVENTION: BY SCOTT R.
TITLE OF INVENTION: PROTEINS ENCODED THEREFROM AND METHODS
TITLE OF INVENTION: OF USING SAME
TITLE OF INVENTION: OF USING SAME
FILE REFERENCE: 6073.US.Pl
CURRENT APPLICATION NUMBER: US/09/391,104
CURRENT APPLICATION NUMBER: US/09/391,104
CURRENT APPLICATION NUMBER: US/09/391,104
STORY FILING DATE: 1997-03-11
NUMBER OF SEQ ID NOS: 35
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 19
LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Mutter, George
APPLICANT: Mutter, George
APPLICANT: Mask, Jan
TITLE OF INVENTION: Prognostic Classification of Breast Cancer
FILE REPRENCE: BOOOL/7224 (JRV)
CURRENT PILING DATE: 2001-07-27
PRIOR APPLICATION NUMBER: US 60/222,093
PRIOR FILING DATE: 2000-07-28
NUMBER OF SEQ ID NOS: 102
SOFTWARE: Patentin version 3.0
LENGTH: 660
Score 114; DB 2; Length 660;
Pred. No. 7.6e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 660;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 660;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
100.0%; Score 114; DB 2;
Best Local Similarity 100.0%; Pred. No. 7.6e-10;
Matches 19; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 100.0%; Score 114; DB 2; Best Local Similarity 100.0%; Pred. No. 7.6e-10; Matches 19; Conservative 0; Mismatches 0;
```

```
VS-011.13-185-14

Sequence 14, Application US/10153185

Patent No. 6906036

GENERAL INCORMATION:
APPLICANT: Quirk, Stephen
APPLICANT: Quirk, Stephen
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
FILE REFERENCE: 1443.034US1
CURRENT APPLICATION NUMBER: US/10/153,185
CURRENT FILING DATE: 2001-02-03
PRIOR APPLICATION NUMBER: US 10/032,376
PRIOR FILING DATE: 2001-12-21
PRIOR FILING DATE: 2001-12-21
SOUTWARE: PRESEE FILING DATE: 2001-06-16
NUMBER OF SEQ ID NOS: 20
SOUTWARE: PRESEE FILING DATE: 2001-06-16
NUMBER OF SEQ ID NOS: 20
SOUTWARE: PRESEE FILING DATE: 2001-06-16
NUMBER OF SEQ ID NOS: 20
SOUTWARE: PRESEE FILING DATE: AND SEQ ID NOS: 20
SOUTWARE: PRESEE FILING DATE: AND SEQ ID NOS: 20
SOUTWARE: PRESEE FILING DATE: AND SEQ ID NOS: 20
SOUTWARE: PRESEE FILING DATE: AND SEQ ID NOS: 20
SOUTWARE: PRESEE FILING DATE: AND SEQ ID NOS: 20
SOUTWARE: PRESEE FILING DATE: AND SEQ ID NOS: 20
SOUTWARE: PRESEE FILING DATE: AND SEQ ID NOS: 20
SOUTWARE: PRESEE FILING DATE: AND SEQ ID NOS: 20
SOUTWARE: PRESEE FILING DATE: AND SEQ ID NOS: 20
SOUTWARE: PRESEE FILING DATE: AND SEQ ID NOS: 20
SOUTWARE: PRESEE FILING DATE: AND SEQ ID NOS: 20
SOUTWARE SEQ ID NOS: 20
SOUTWARE FILING DATE: AND SEQ ID NOS: 20
SOUTWARE SEQ ID N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-194-468A-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-194-468A-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  us-us-us-ys-use, 1937,

patent No. 681239

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;

FILE REPERENCE: CLOO1307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT PILING DATE: 2000-04-14

PRIOR PILING DATE: 2000-10-20

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FastSEQ for Windows Version 4.0

LENGTH, 660
                                                                                                                                                                                                                                                                                                      Sequence 6512, Application US/09949016

Sequence 6512, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

CURRENT FILING DATE: 2000-04-14

PRIOR FILING DATE: 2000-10-20

PRIOR PELICATION NUMBER: 60/241,755

PRIOR PELICATION NUMBER: 60/231,498

PRIOR PILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

SETOR FILING DATE: 2000-10-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
100.0%; Score 114; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 7.6e-10;
Matches 19; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.0%; Score 114; DB 2; Length 660; Best Local Similarity 100.0%; Pred. No. 7.6e-10; Matches 19; Conservative 0; Mismatches 0; Indels (
                                            100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100 PRCGNPDVANYNFFPRKPK 118
1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Human
                                                                                                                                                                                                                             RESULT 10
US-09-949-016-6512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 11
US-09-949-016-7937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-949-016-6512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-949-016-7937
                                                                                                                                                                                                                                                                                                                                    ; Sequence 6512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                  ; Score 114; DB 2; Length 660; ; Pred. No. 7.6e-10; 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 100.0%; Score 114; DB 2; Length 663; Best Local Similarity 100.0%; Pred. No. 7.7e-10; Matches 19; Conservative 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-513-999C-4639
Sequence 4639, Application US/09513999C
; Patent No. 6783961
; GENERAL INFORMATION;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               , APPLICANT: Dumas Milne Edwards, J.B.
                                                                                                              100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97 PRCGNPDVANYNFPPRKPK 115
                                                                                        1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVANYNFFPRKPK 19
                                    Query Match
Best Local Similarity 100.0%;
Matches 19; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Gallus gallus
; ORGANISM: Homo sapiens
US-10-153-185-14
```

ö

Length 136;

```
Sequence 4163, Application US/09513999C
; Sequence 4163, Application US/09513999C
; Retent No. 6783961
; GENERAL INFORMATION:
APPLICANT: Dumes Milne Edwards, J.B.
APPLICANT: Duclert, A.
APPLICANT: Duclert, A.
TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
FILE REPERENCE: 59. US2. REG
CURRENT PILING DATE: 2000-02-24
FRICH REPERENCE: 1999-02-26
CURRENT FILING DATE: 1999-02-26
; PRIOR FILING DATE: 1999-02-26
; NUMBER: OF SEQ ID NOS: 36681
; SOFTWARE: PATENTLEM
; SEQ ID NO 4163
; LENGTH: 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 68.4%; Score 78; DB 2; Length 135
Best Local Similarity 68.4%; Pred. No. 7.1e-05;
Matches 13; Conservative 1; Mismatches 5; Indels
                                                                                                                                             Query Match 79.8%; Score 91; DB 2; Best Local Similarity 84.2%; Pred. No. 6e-07; Matches 16; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Search completed: February 21, 2006, 08:02:40 Job time : 43.5 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION: -17..-1
OTHER INFORMATION: SCORE 13
OTHER INFORMATION: SEG VLCAVCLLPGSLA/LP
               ; FEATURE:
; NAME/KEY: UNSURE
; LOCATION: 104
; OTHER INFORMATION: Xaa=Ala or Pro
US-09-513-999C-4639
                                                                                                                                                                                                                                                                 100 PRCGXPDVAXYNFFPRXXK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; OTHER INFORMATION: Xaa=His or Arg
US-09-513-999C-4163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
NAME/KEY: UNSURE
LOCATION: 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: SIGNAL
                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: UNSURE
LOCATION: 88 8
OTHER INPORMATION: Xaa=Ala or Cys or Asp or Phe or Gly or His or Ile or Leu or Asn
OTHER INPORMATION: Tyr
APPLICANT: Duclert, A.
APPLICANT: Glordano, J.Y.
TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
PATCHE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
PATCHE REPRENCE: 59. US2.REG
CURRENT APPLICATION NUMBER: US/09/513,999C
CURRENT FILING DATE: 1999-02-24
PRIOR FILING DATE: 1999-02-26
NUMBER OF SEQ ID NOS: 36681
SOFTWARE: PATCH. PM
SEQ ID NO 4639
LENGTH: 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: 80
OTHER INFORMATION: Xaa=Lys or Asn or Arg or Ser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION: Xaa=1le or Asn or Ser or Thr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: Xaa=Ala or Pro or Ser or Thr
                                                                                                                                                                                                                                                                                                                                       FEATURE:
NAME/KEY: SIGNAL
LOCATION: -29.-1
OTHER INFORMATION: sec 11.4
OTHER INFORMATION: sec LCLLGCLLSHAAA/AP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OCATION: 26
YTHER INFORMATION: Xaa=Lys or Asn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: 33
OTHER INFORMATION: Xaa=Lys or Asn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION: 22
OTHER INFORMATION: Xaa=Leu or Val
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION: 75
OTHER INFORMATION: Xaa=Lys or Asn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 THER INFORMATION: Xaa=Glu or Lys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           THER INFORMATION: Xaa=Glu or Lys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OTHER INFORMATION: Xaa=Asp or Glu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION: Xaa=Lys or Thr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               or Val
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OTHER INFORMATION: Xaa=Asp
                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'EATURE:
NAME/KEY: UNSURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
NAME/KEY: UNSURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
NAME/KEY: UNSURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
NAME/KEY: UNSURE
LOCATION: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
NAME/KEY: UNSURE
LOCATION: 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
NAME/KEY: UNSURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IAME/KEY: UNSURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IAME/KEY: UNSURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: UNSURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: UNSURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COCATION
```

ö

Gaps

ö

.

Length 135;

This Page Blank (Uspto)

3

; Search time 146 Seconds (without alignments) . 54.375 Million cell updates/sec GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd. February 21, 2006, 18:13:46 OM protein - protein search, using sw model Copyright

114 1 PRCGNPDVANYNFFPRKPK 19 US-10-601-059-11 Title: Perfect score:

Run on:

Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

48 Total number of hits satisfying chosen parameters:

1867569 seqs, 417829326 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 100% Maximum Match 100% Listing first 500 summaries

Published Applications AA Main:*

1: /cgn2_6/ptodata/1/pubpāa/US07_PUBCOMB.pep:*

2: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*

3: /cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*

4: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*

5: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*

6: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	5																											
		Appl	Appl	Appl	Appl	Appl	Appl	Appl	Appl	Appl	Appl	Appl	Appl	Appl	Appl	Appli	Appli	Appli	Appli	Appli	Appli	Appli	7964, A	56, Appl	54360, A	Appl	Appl	, App
	Ę :	11,	11	11,	11,	11,	1,	11,	15,	15,	15,	15,	15,			7	7	~	~	۲,		ູ່	379	26,	543	19,	35,	208
	Description	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence
SOFEMALES	ΙD	US-10-219-329-11	US-10-153-185-11	US-10-219-561-11	US-10-032-376A-11	US-10-335-207-11	US-10-601-059-11	US-11-031-488-11	US-10-219-329-15	US-10-153-185-15	US-10-219-561-15	US-10-032-376A-15	US-10-335-207-15	US-10-601-059-15	US-11-031-488-15	US-10-219-329-2	US-10-153-185-2	US-10-219-561-2	US-10-032-376A-2	US-10-335-207-2	US-10-601-059-2	US-11-031-488-2	US-09-864-761-37964	US-10-852-707-56	US-10-450-763-54360	US-09-391-104-19	US-09-801-196-35	US-09-918-715-208
	8	4	4	4	4	4	Ŋ	9	4	4	4	4	4	Ŋ	ø	4	4	4	4	4	Ŋ	9	m	ហ	Ŋ	ო	ო	m
	Query Match Length DB	19	19	19	19	19	19	19	43	43	43	43	43	43	43	44	44	44	44	44	44	44	75	462	468	099	099	099
d P	Match	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Score	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114
i	Kesult No.	1	7	Ю	4	ស	w	7	8	თ	10	11	12	13	14	15	16	17	18	19	50	21	22	23	24	25	56	27

Sequence 14, Appl	Sequence 125, App	Sequence 14, Appl	Sequence 14, Appl	Sequence 25, Appl	Sequence 3, Appli	Sequence 14, Appl	Sequence 14, Appl	Sequence 1, Appli	Sequence 208, App	Sequence 14, Appl	Sequence 131, App	25, 7	Sequence 208, App	Sequence 489, App	Sequence 1185, Ap	Sequence 131, App	Sequence 14, Appl	Sequence 30, Appl	Sequence 30, Appl	Sequence 54358, A
US-10-219-329-14	US-10-301-822-125	US-10-153-185-14	US-10-219-561-14	US-10-131-985-25	US-10-447-315-3	US-10-032-376A-14	US-10-335-207-14	US-10-480-621-1	US-10-474-794-208	US-10-601-059-14	US-10-872-198-131	US-10-901-417-25	US-10-979-159-208	US-10-287-436A-489	US-10-287-436A-1185	US-11-021-951-131	US-11-031-488-14	US-10-115-223-30	US-10-402-212-30	US-10-450-763-54358
4	4	4	4	4	4	4	4	4	4	ß	Ŋ	Ŋ	ß	ß	ഗ	ø	9	4	4	Ŋ
099	9	099	099	099	9	099	099	099	099	099	9	099.	9	9	099	9	099	663	663	1330
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

ALIGNMENTS

Sequence 11, Application US/10219329;
Publication No. US20030096757A1
GENERAL INFORMATION:
APPLICANT: Quirk: Stephen
APPLICANT: Quirk: Stephen
TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
FILE REFERENCE: 1431.035W01
CURRENT PILING DATE: 2002-08-15
CURRENT FILING DATE: 2001-12-21
PRIOR FILING DATE: 2001-12-21
PRIOR FILING DATE: 2001-08-16
PRIOR FILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 23
SOFTWARE: FRAESEQ for Windows Version 4.0
SEQ ID NO 11
FIRMSTH: DATE: ; ORGANISM: Homo sapiens US-10-219-329-11 US-10-219-329-11

ô Length 19; Indels Query Match
Best Local Similarity 100.0%; Pred. No. 1.5e-09;
Matches 19; Conservative 0; Mismatches 0;

ö

Gaps

PRCGNPDVANYNFFPRKPK 19 1 PRCGNPDVANYNFFPRKPK 19 ઠે 셤

Sequence 11, Application US/10153185
Publication No. US20030148959A1
GENERAL INPORMATION:
APPLICANT: Quirk, Schail
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
FILE REFERENCE: 1443.034U31
CURRENT APPLICATION NUMBER: US/10/153,185
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US 10/032,376
PRIOR FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: US 60/312,726
PRIOR FILING DATE: 2001-08-16 US-10-153-185-11

3

ö

Gaps

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 100.0%; Score 114; DB 4; Length 19; Best Local Similarity 100.0%; Pred. No. 1.5e-09; Matches 19; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 19;
                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KESULIA
Sequence 11, Application US/10601059
Sequence 11, Application US/10601059
Publication No. US20040259802A1
GENERAL INFORMATION:
APPLICANT: Yang, Shu-Ping
APPLICANT: Quirk, Stephen
TITLE OF INVENTION: Anti-Chrondrosarcoma Compounds
FILE REPERENCE: 1443.064US1
CURRENT APPLICATION NUMBER: US/10/601,059
CURRENT FILING DATE: 2003-06-20
PRIOR APPLICATION NUMBER: US 10/335,207
PRIOR PILING DATE: 2002-12-30
PRIOR PILING DATE: 2002-08-15
PRIOR PILING DATE: 2002-08-15
PRIOR APPLICATION NUMBER: US 10/153,185
PRIOR APPLICATION NUMBER: US 10/153,185
PRIOR PILING DATE: 2002-08-15
PRIOR PILING DATE: 2002-08-15
PRIOR PILING DATE: 2002-08-15
PRIOR PILING DATE: 2002-08-15
PRIOR PILING DATE: 2001-08-15
PRIOR PILING DATE: 2001-08-16
PRIOR PILING DATE: 2001-08-17
                                                                                                                                                                                                                     RESULT 5
US-10-335-207-11

Sequence 11, Application US/10335207

Publication No. US20040127421A1

GENERAL INFORMATION:

APPLICANT: Malik, Sohail

TITLE OF INVENTION: Method to Increase Fibronectin

FILE REFERENCE: 1443.047US1

CURRENT APPLICATION NUMBER: US/10/335,207

CURRENT FILING DATE: 2002-12-30

NUMBER OF SEQ ID NOS: 21

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 11

LENTH: 19
  100.0%; Pred. No. 1.5e-09; ative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
100.0%; Score 114; DB 5;
Best Local Similarity 100.0%; Pred. No. 1.5e-09;
Matches 19; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDVANYNFFPRKPK 19
                                                                                       1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                       1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVANYNFFPRKPK 19
                                   19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo sapiens
  Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-335-207-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-601-059-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
                                   Matches
                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       엄
                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-032-376A-11

| Sequence 11, Application US/10032376A |
| Sequence 11, Application US/20040127420A1 |
| Publication No. US20040127420A1 |
| Publication No. US20040127420A1 |
| TULE OF INVENTATION: Wetalloproteinase Inhibitors for Wound Healing |
| TITLE OF INVENTATION: Wetalloproteinase Inhibitors for Wound Healing |
| FILE REFERENCE: 1443-008051 |
| CURRENT APPLICATION NUMBER: US/10/032,376A |
| PRIOR APPLICATION NUMBER: 60/312,726 |
| PRIOR APPLICATION NUMBER: 60/312,726 |
| NUMBER OF SEQ ID NOS: 20 |
| SEQ ID NO 11 |
| LENGTH: 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 11, Application US/10219561

Publication No. US20030166567A1

GENERAL INPOWEMATION:

APPLICANT: Quirk, Stephen

APPLICANT: Quirk, Stephen

APPLICANT: Willanueva, Julie M.

TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds

FILE REFERENCE: 1443.008052

CURRENT APPLICATION NUMBER: US/10/219,561

CURRENT APPLICATION NUMBER: US 10/032,376

PRIOR PILING DATE: 2001-08-15

PRIOR PILING DATE: 2001-08-15

PRIOR PILING DATE: 2001-08-15

PRIOR PILING DATE: 2001-08-16

PRIOR PILING DATE: 2001-08-16

NUMBER OF SEQ ID NOS: 21

SOFTWARE: FastSEQ for Windows Version 4.0

TYPE: PRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 19;
                                                                                                                                                                                                                              Length 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 19;
                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                        Query Match
100.0%; Score 114; DB 4;
Best Local Similarity 100.0%; Pred. No. 1.5e-09;
Matches 19; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
100.0%; Score 114; DB 4;
Best Local Similarity 100.0%; Pred. No. 1.5e-09;
Matches 19; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 114;
NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-11
                                                                                                                                                                                                                                                                                                                                                                       1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                          1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     , ORGANISM: Homo sapiens
US-10-219-561-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-032-376A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 3
US-10-219-561-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                             ઠે
```

ö

Gaps

ô

Gaps

셤

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 15, Application US/10032376A
Publication No. US20040127420A1
GENERAL INFORMATION:
APPLICANT: Quirk, Steven
TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
FILE REFERENCE: 1443.008081
CURRENT APPLICATION NUMBER: US/10/032,376A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JAPELICANT: Quirk, Stephen
APPLICANT: Malik, Sohail
APPLICANT: Malik, Sohail
APPLICANT: Malik, Sohail
APPLICANT: Valianueva, Julia M.
TITLE OF INVENTION: Auti-Aging and Wound Healing Compounds
FILE REFERENCE: 1443.008US2
CURRENT APPLICATION NUMBER: US/10/219,561
CURRENT FILING DATE: 2002-08-15
PRIOR APPLICATION NUMBER: US 10/032,376
PRIOR APPLICATION NUMBER: US 10/153,185
PRIOR PILING DATE: 2001-08-16
PRIOR PILING DATE: 2001-08-16
PRIOR PILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PASTESC for Windows Version 4.0
SEQ ID NO 15
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: OULIFK, Stephen
APPLICANT: OULIFK, Stephen
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
FILE REFERENCE: 1443.034US1
CURRENT APPLICATION NUMBER: US/10/153,185
CURRENT FILING DATE: 2002-08-13
PRIOR PILING DATE: 2001-12-21
PRIOR PILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 20
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 15
LENOTH: 43
TYPE: PRI
TYPE: PRI
CREATION REPRESED FOR WINDOWS VERSION 5.0
CONGANISM: Homo sapiens
US-10-153-185-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 100.0%; Score 114; DB 4; Length 43; Best Local Similarity 100.0%; Pred. No. 3.3e-09; Matches 19; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 114; DB 4; 100.0%; Pred. No. 3.3e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 15, Application US/10219561
Publication No. US20030166567A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24 PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24 PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 100.0
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-032-376A-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-219-561-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-219-561-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 15, Application US/10219329; Bublication No. US20030096757A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen; APPLICANT: Weart, 10na f.; TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds; FILE REFERENCE: 1443.035W01
; CURRENT APPLICATION NUMBER: US/10/219,329
; CURRENT FILING DATE: 2002-08-15; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR PILING DATE: 2001-10-16
; PRIOR FILING DATE: 2001-10-16
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                              Sequence 11, Application US/11031488

Sequence 11, Application US/11031488

Publication No. US20050239710A1

GENERAL INFORMATION:
APPLICANT: Malik, Stephen
APPLICANT: Malik, Schall
ITILE OF INVENTION: Anti-Aging and Wound Healing Compounds
FILE REFERENCE: 1443.034US1
CURRENT APPLICATION NUMBER: US/11/031,488
CURRENT FILING DATE: 2005-01-07
PRIOR PILING DATE: 2005-01-07
PRIOR PILING DATE: 2001-02-05-11
PRIOR FILING DATE: 2001-12-21
PRIOR FILING DATE: 2001-12-21
PRIOR FILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 20

SOFTWARE: FREEERY ELSCOIL-08-16

SEQ ID NOS: 20

LENGTH: 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 114; DB 4;
100.0%; Pred. No. 3.3e-09;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 114; DB 6; 100.0%; Pred. No. 1.5e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
    PRCGNPDVANYNFPPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24 PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 100.
Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-219-329-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-11-031-488-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-219-329-15
```

Matches

а δ

ö

RESULT 9 US-10-153-185-15 ; Sequence 15, Application US/10153185

g

ô

Gaps

ö

q

ð

```
US-10-139-329-2

| Sequence 2, Application US/10219329 |
| Sequence 2, Application US/20030096757A1 |
| Sequence 2, Application No. Use 20030096757A1 |
| GENERAL INFORMATION: |
| APPLICANT: Weart, Ilona f. |
| TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds FILE REPERENCE: 1443.035W01 |
| CURRENT APPLICATION NUMBER: US/10/219,329 |
| CURRENT FILING DATE: 2002-08-15 |
| PRIOR PRILING DATE: 2001-12-21 |
| PRIOR PILING DATE: 2001-08-16 |
| PRIOR FILING DATE: 2001-08-16 |
| PRIOR FILING DATE: 2001-08-16 |
| NUMBER OF SEQ ID NOS: 23 |
| SEQ ID NO 2 |
| LENGTH: 44
                                                                                                                                                                                                                                                                                                                                                                                                                 VESULI 1.031-488-15

Sequence 15, Application US/11031488

Sequence 15, Application US/11031488

Publication No. US20050239710A1

GENERAL INFORMATION:
APPLICANT: Malik, Stephen
APPLICANT: Malik, Stephen
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
FILE REFERENCE: 1443.03451

CURRENT APPLICATION NUMBER: US/11/031,488

CURRENT FILING DATE: 2005-01-07

PRIOR PILING DATE: 2005-05-21

PRIOR FILING DATE: 2001-12-21

PRIOR FILING DATE: 2001-16-16

NUMBER OF SEQ ID NOS: 20

NUMBER OF SEQ ID NOS: 20

SEQ ID NOS: 20

LENGTH: 43
                                                                                                                                                                           100.0%; Score 114; DB 5; Length 43; 100.0%; Pred. No. 3.3e-09; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
100.0%; Score 114; DB 6;
Best Local Similarity 100.0%; Pred. No. 3.3e-09;
Matches 19; Conservative 0; Mismatches 0;
SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 15
LENGTH: 43
                                                                                                                                                                                                                                                                            1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                        24 PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24 PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                           Query Match
Best Local Similarity 100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                   ORGANISM: Homo sapiens
                                                                                                                             US-10-601-059-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-11-031-488-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-219-329-2
                                                                               TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                  Query Match
100.0%; Score 114; DB 4; Length 43;
Best Local Similarity 100.0%; Pred. No. 3.3e-09;
Matches 19; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 114; DB 4; Length 43; 100.0%; Pred. No. 3.3e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 15, Application US/10335207
Publication No. US20040127421A1
GENERAL INFORMATION:
APPLICANT: Walik, Schail
TITLE OF INVENTION: Method to Increase Fibronectin; FILE REFERENCE: 1443.047US1
CURRENT APPLICATION NUMBER: US/10/335,207
CURRENT FILING DATE: 2002-12-30
NUMBER OF SEQ ID NOS: 21
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERALL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Quirk, Stephen
APPLICANT: Mimberly-Clark Worldwide, Inc.
TITLE OF INVENTION: Anti-Chrondrogarcoma Compounds
FILE REFERENCE: 1443.064US1
CURRENT APPLICATION NUMBER: US/10/601,059
CURRENT FILING DATE: 2003-06-20
PRIOR APPLICATION NUMBER: US 10/335,207
PRIOR FILING DATE: 2002-10-30
PRIOR FILING DATE: 2002-12-30
PRIOR FILING DATE: 2002-08-15
PRIOR FILING DATE: 2002-05-15
PRIOR FILING DATE: 2002-05-15
PRIOR FILING DATE: 2001-12-21
PRIOR FILING DATE: 2001-12-21
PRIOR FILING DATE: 2001-12-21
PRIOR FILING DATE: 2001-12-21
PRIOR FILING DATE: 2001-08-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
  CURRENT FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: 60/312,726
PRIOR FILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 20
SOFTWARE: PASISEQ for Windows Version 4.0
SEQ ID NO 15
LENGTH: 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Sequence 15, Application US/10601059; Publication No. US20040259802A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                         24 PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24 PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                             1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                               ; ORGANISM: Homo sapiens
US-10-032-376A-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 12
US-10-335-207-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
US-10-601-059-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-335-207-15
                                                                                                                                                                             TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
```

셤

ઠે

ö

Gaps

셤

```
Sequence 2, Application US/10032376A;
Publication No. US20040127420A1;
GENERAL INFORMATION:
APPLICANT: QUITK, Steven
TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing;
FILE REFERENCE: 1443.008US1;
CURRENT APPLICATION UNDER: US/10/032,376A;
CURRENT PILING DATE: 2001-12-21;
PRIOR APPLICATION NUMBER: 60/312,726;
PRIOR APPLICATION NUMBER: 60/312,726;
NUMBER OF SEQ ID NOS: 20;
SOFTWARE: FastSEQ for Windows Version 4.0;
SEQ ID NO 2,
SEQ ID NO 2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 114; DB 4; Length 44; 100.0%; Pred. No. 3.4e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 114; DB 4; Length 44; 100.0%; Pred. No. 3.4e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Sequence 2, Application US/10335207
| Publication No US20040127421A1
| GENEBAL INFORMATION:
| APPLICANT: Malik, Schail
| APPLICANT: Quirk, Stephen
| TITLE OF INVENTION: Method to Increase Fibronectin
| FILE REFERENCE: 1443.047U3
| CURRENT APPLICATION NUMBER: US/10/335,207
| NUMBER OF SEQ ID NOS: 21
| SOFTWARE: FastSEQ for Windows Version 4.0
| SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 2, Application US/10601059; Sequence 2, Application No. US20040259802A1; GENERAL INFORMATION:
APPLICANT: Yang, Shu-Ping
APPLICANT: Quirk, Stephen; APPLICANT: Rimberly-Clark Worldwide, Inc.; TITLE OF INVENTION: Anti-Chrondrosarcoma Compounds; FILE REFERENCE: 1443.064US1; CURRENT APPLICATION NUMBER: US/10/601,059; CURRENT PAPLICATION NUMBER: US/10/601,059; PRIOR APPLICATION NUMBER: US 10/335,207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
       24 PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24 PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-032-376A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-335-207-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 20
US-10-601-059-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-335-207-2
       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 2, Application US/10219561
; Sequence 2, Application US/10219561
; Publication No. US20030166567A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Malik, Sohail
; APPLICANT: Malik, Sohail
; APPLICANT: Malik, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; TITLE OF INVENTION: NUMBER: US/10/219,561
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 10/133,185
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR APPLICATION NUMBER: US 60/312,726
; RINDMER OF SEQ ID NOS: 21
; SOFTWARE: PastSEQ for Windows Version 4.0
; SEQ ID NO 2.
                                                                                                                                                                                                                                                            Sequence 2, Application US/10153185
; Sequence 2, Application US/20030148959A1
; Publication No. US20030148959A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REPERRNCE: 1443.034051
; CURRENT FILING DATE: 2002-08-13
; PRIOR APPLICATION NUMBER: US 10/032,376
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-12-21
; PRIOR FILING DATE: 2001-08-16
; WUMBER OF SEQ ID NOS: 20
; SOFTWARE: FRSESEQ FOR WINDOWS Version 4.0
       Length 44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 114; DB 4; Length 44; 100.0%; Pred. No. 3.4e-09; tive 0; Mismatches 0; Indels
                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
ch 100.0%; Score 114; DB 4;
1 Similarity 100.0%; Pred. No. 3.4e-09;
19; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 100.0%; Pred. No. 3.4e-09;
Matches 19; Conservative 0; Mismatches 0;
                                                                                                                              24 PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24 PRCGNPDVANYNFFPRKPK 42
                                                                                                  1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 100.
Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo sapiens
Query Match
Best Local Similarity
Matches 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-153-185-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-219-561-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 2
LENGTH: 44
```

셤

Gaps

ö

Gaps

```
Sequence 56, Application US/10852707
Publication No. US20050142572A1
Publication No. US20050142572A1
SEMERAL INFORMATION:
APPLICANT: Turner, Leah
APPLICANT: Subset
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION: MAP TO AC007336.2
OTHER INFORMATION: EXPRESSED IN HEACENTA, SIGNAL = 1.1
OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 2
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 2
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 2
OTHER INFORMATION: EXT HUMAN HIT: A1752377.1, EVALUE 1.00e-41
US-09-864-761-37964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 75;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FRIOR AFPLICATION NUMBER: PCT/USOL/U00644

FRIOR APPLICATION NUMBER: PCT/USOL/U00669

FRIOR APPLICATION NUMBER: PCT/USOL/00669

FRIOR FILING DATE: 2001-01-30

FRIOR APPLICATION NUMBER: PCT/USOL/00662

FRIOR FILING DATE: 2001-01-30

FRIOR APPLICATION NUMBER: US 09/608,408

FRIOR APPLICATION NUMBER: US 09/608,408

FRIOR APPLICATION NUMBER: US 09/774,203

FRIOR APPLICATION NUMBER: US 09/774,203

FRIOR APPLICATION NUMBER: 2001-01-29

NUMBER OF SEQ ID NOS: 49117

SEQ ID NO 379644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
100.0%; Score 114; DB 3;
Best Local Similarity 100.0%; Pred. No. 5.7e-09;
Matches 19; Conservative 0; Mismatches 0;
                                                                                                             PRIOR PELLING DATE: 2001-09-23
PRIOR PELLING DATE: 2000-02-04
PRIOR PELLING DATE: 2000-02-04
PRIOR PELLING DATE: 2000-05-05
PRIOR PLILING DATE: 2000-05-26
PRIOR PLILING DATE: 2000-05-36
PRIOR PLILING DATE: 2000-08-03
PRIOR PLILING DATE: 2000-10-04
PRIOR PLILING DATE: 2000-10-04
PRIOR PLILING DATE: 2000-09-07
PRIOR PELLING DATE: 2000-09-07
PRIOR PELLING DATE: 2001-01-30
PRIOR PELLING DATE: 2001-01-30
PRIOR PILLING DATE: 2001-01-30
PRIOR PILLING DATE: 2001-01-30
PRIOR PLILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00667
PRIOR APPLICATION NUMBER: PCT/US01/00667
PRIOR APPLICATION NUMBER: PCT/US01/00667
                                 CURRENT APPLICATION NUMBER: US/09/864,761
CURRENT FILING DATE: 2001-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      49 PRCGNPDVANYNFFPRKPK 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-852-707-56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 37964, Application US/09864761

Sequence 37964, Application US/09864761

Patent No. US20020048763A1

GENERAL INPORMATION:

APPLICANT: Penn, Sharron G.

APPLICANT: Rank, David R.

APPLICANT: Chen, Wensheng

TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INTOGRATION:

GENERAL INTOGRATION:

APPLICANT: Malik, Schail

TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds;
FILE REFERENCE: 1443.034051

CURRENT FILING DATE: 2005-01.07

PRIOR PILING DATE: 2005-01.07

PRIOR PILING DATE: 2001-02.1

PRIOR PILING DATE: 2001-12.1

PRIOR PILING DATE: 2001-12.1

PRIOR PELICATION NUMBER: US 60/312,726

PRIOR PILING DATE: 2001-03.1

PRIOR PELICATION NUMBER: US 60/312,726

PRIOR PILING DATE: 2001-03.1

SPRIOR PILING DATE: 2001-03.1

PRIOR PILING DATE: 2001-03.1

PRIOR PILING DATE: 2001-03.1

PRIOR PILING DATE: 2001-03.1

PRIOR PILING DATE: 2001-03.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ch
1 Similarity 100.0%; Score 114; DB 6; Length 44;
19; Conservative 0; Mismatches 0. тэдэг
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 114; DB 5; 100.0%; Pred. No. 3.4e-09;
PRIOR FILING DATE: 2002-12-30
PRIOR APPLICATION UNMERS: US 10/219,329
PRIOR FILING DATE: 2002-08-15
PRIOR FILING DATE: 2002-08-15
PRIOR FILING DATE: 2002-08-15
PRIOR PLING DATE: 2002-08-15
PRIOR PLING DATE: 2002-08-15
PRIOR APPLICATION NUMBER: US 10/153,185
PRIOR PILING DATE: 2002-05-21
PRIOR PILING DATE: 2001-02-16
PRIOR PILING DATE: 2001-02-16
PRIOR PILING DATE: 2001-08-16
NUMBER: OF SEQ ID NOS: 21
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2, Application US/11031488; Publication No. US20050239710A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24 PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24 PRCGNPDVANYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 100.
Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 22
US-09-864-761-37964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 21
US-11-031-488-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-11-031-488-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-601-059-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
```

ઠ 유 ö

Gaps

Matches

셤 ઠે

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                 APPLICANT: Abbott Laboratories
APPLICANT: Falduto, Michael T.
APPLICANT: Radduto, Michael T.
APPLICANT: Magnuson, Scott R.
APPLICANT: Morgan, Douglas W.
ITILE OF INVENTION: HUMAN MATRIX METALLOPROTEASE GENE,
ITILE OF INVENTION: PROTEINS ENCODED THEREFROM AND METHODS
ITILE OF INVENTION: PROTEINS ENCODED THEREFROM AND METHODS
ITILE OF INVENTION: OF USING SAME
FILE REFERENCE: 6073.US.Pl
CURRENT PAPLICATION NUMBER: US/09/391,104
CURRENT FILING DATE: 1999-05-07
PRIOR FLING DATE: 1997-03-11
NUMBER OF SEQ ID NOS: 35
SCOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NOS: 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
100.0%; Score 114; DB 3; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Wang, Kai
APPLICANT: Smith, Ryan
APPLICANT: Smith, Ryan
APPLICANT: Fajard, Mark
APPLICANT: Fajardo, Mark
APPLICANT: Fajardo, Mark
APPLICANT: Formation
TITLE OF INVENTION: A NOVEL MATRIX METALLOPROTEINASE (MMP-25)
TITLE OF INVENTION: EXPRESSED IN SKIN CELLS
FILE REPERENCE: 240083.509
CURRENT PILLOR NUMBER: US/09/801,196
CURRENT FILING DATE: 2001-03-06
NUMBER OF SEQ ID NOS: 37
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
100.0%; Score 114; DB 3; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Brad St. Croix
APPLICANT: Bert Vogelstein
APPLICANT: Kenneth Kinzler
APPLICANT: Kenneth Kinzler
TITLE OF INVENTION: ENDOTHELIAL CELL EXPRESSION PATTERNS
FILE REFERENCE: 1107.00134
CURRENT APPLICATION NUMBER: US/09/918,715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-918-715-208
; Sequence 208, Application US/09918715
; Publication No. US20030017157A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 26
US-09-801-196-35
; Sequence 35, Application US/09801196
; Patent No. US20020037827A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 PRCGNPDVANYNFFPRKPK 19
          US20020031817A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; ORGANISM: Homo sapiens
US-09-391-104-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CRGANISM: Homo sapiens
US-09-801-196-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: FAB
SEQ ID NO 35
LENGTH: 660
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: (221)...(258)
OTHER INFORMATION: Type II fibronectin collagen-binding domain proteins domain
OTHER INFORMATION: identified by eMATRIX, accession number BL00023, p-value=4.682e-3
OTHER INFORMATION: raw score of 24.31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: (167)..(264)
OTHER INFORMATION: Fibronectin type II domain identified by PFam, accession name OTHER INFORMATION: fn2, E-value=4.4e-55, PFam score of 147.1
                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 468;
                                                                                                                                                                                                                                                                                                                                     Length 462;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 54360, Application US/10450763
; Publication No. US20050196754A1
; GENERAL INFORMATION:
; GENERAL INFORMATION:
; TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES
; FILE REPERENCE: 790CIP3/US
; CURRENT APPLICATION NUMBER: US/10/450,763
; CURRENT APPLICATION NUMBER: US/10/450,763
; CURRENT APPLICATION NUMBER: 09/640,11
; PRIOR APPLICATION NUMBER: 09/540,217
; PRIOR PILING DATE: 2000-03-30
; PRIOR PILING DATE: 2000-03-31
; PRIOR FILING DATE: 2000-03-31
; SEQ ID NO 54360
; SEQ ID NO 54360
                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; LOCATION: (1)...(468)

i. OTHER INFORMATION: Xaa = X or * as defined in Table 2
US-10-450-763-54360
                                                                                                                                                                                                                                                                                                                               100.0%; Score 114; DB 5;
100.0%; Pred. No. 3.5e-08;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 114; DB 5;
100.0%; Pred. No. 3.5e-08;
tive 0; Mismatches 0;
; FILE REFERENCE: DEX-0486
; CURRENT APPLICATION NUMBER: US/10/852,707
; CURRENT FILING DATE: 2004-05-24
; PRIOR APPLICATION NUMBER: US 60/473,941
; PRIOR FILING DATE: 2003-05-22
; NUMBER OF SEQ ID NOS: 138
; SOFTWARE: PatentIn version 3.1
; SOFTWARE: PatentIn version 3.1
; LENGTH: 462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 25
US-09-391-104-19
; Sequence 19, Application US/09391104
                                                                                                                                                                                                                                                                                                                                                                                                                                                             100 PRCGNPDVANYNPPPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRCGNPDVANYNFFPRKPK 104
                                                                                                                                                                                                                                                                                                                                                                                                                                   1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.0
Marches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Homo sapien
US-10-852-707-56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
NAME/KEY: DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
NAME/KEY: DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-450-763-54360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
```

```
; ORGANISM: Homo Sapiens
US-10-301-822-125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JS-10-153-185-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-153-185-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 125, Application US/10301822
| Publication No. US20030148410A1 |
| GENERAL INFORMATION: |
| APPLICANT: Milennium Pharmaceuticals, Inc. |
| APPLICANT: Milennium Pharmaceuticals, Inc. |
| APPLICANT: Guillemette, Tracy L. |
| APPLICANT: Kamatkar, Shubhangi |
| APPLICANT: Kamatkar, Shubhangi |
| APPLICANT: Thibodeau, Stephen N. |
| APPLICANT: Thibodeau, Stephen N. |
| APPLICANT: Burgart, Lawrence J. |
| APPLICANT: Burgart, Lawrence J. |
| TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND |
| TITLE OF INVENTION: THERAPY OF COLON CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 14, Application US/10219329
Sequence 14, Application US/10219329
Sequence 14, Application US/10219329
Sublication No. US20030096757A1
GENERAL INFORMATION:
APPLICANT: Quirk, Stephen
APPLICANT: Weart, Ilona f.
TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
FILE REFERENCE: 1443.035801
CURRENT FILING DATE: 2002-08-15
PRIOR PAPLICATION NUMBER: US/10/219,329
CURRENT FILING DATE: 2001-12-21
PRIOR FILING DATE: 2001-12-21
PRIOR FILING DATE: 2001-12-21
PRIOR FILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 23
SOFTWARE: FASELSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                    Query Match
100.0%; Score 114; DB 3; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 114; DB 4; Length 660; 100.0%; Pred. No. 5e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
CURRENT FILING DATE: 2001-08-01
PRIOR APPLICATION WUMBER: 60/222,599
FRIOR FILING DATE: 2000-08-02
PRIOR FLING DATE: 2000-08-01
PRIOR PLING DATE: 2000-08-11
PRIOR PLING DATE: 2000-08-11
PRIOR FILING DATE: 2000-04-11
NUMBER: FEGULE DROS: 358
SOFTWARE: FEGULE OF MINDOWS VERSION 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PILE REFERENCE: MPM01-029P2RNM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 100.
Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                             ORGANISM: Homo sapiens
US-09-918-715-208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; LENGTH: 660
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-329-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 29
US-10-301-822-125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 28
US-10-219-329-14
                                                                                                                                                                                                                                                                           TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 14, Application US/10153185
Fublication No. US20030148959A1
GENERAL INFORMATION:
APPLICANT: Quirk, Stephen
APPLICANT: Mairk, Schail
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
FILE REFRENCE: 1443.034US1
CURRENT APPLICATION NUMBER: US/10/153,185
CURRENT APPLICATION NUMBER: US 10/032,376
FRIOR APPLICATION NUMBER: US 60/312,726
FRIOR APPLICATION NUMBER: US 60/312,726
FRIOR APPLICATION NUMBER: US 60/312,726
FRIOR PILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 20
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-215-561-14

Sequence 14, Application US/10219561

Sequence 14, Application US/10219561

Publication No. US20030166567A1

GENERAL INFORMATION:
APPLICANT: Quirk, Stephen
APPLICANT: Willam.
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
FILE REFERENCE: 1443.088US2
CURRENT APPLICATION NUMBER: US/10/219,561
CURRENT FILING DATE: 2002-08-15
PRIOR APPLICATION NUMBER: US 10/32,376

PRIOR PILING DATE: 2001-12-21

PRIOR PILING DATE: 2001-12-21

PRIOR PILING DATE: 2002-05-21
                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Score 114; DB 4; Length 660; Pred. No. 5e-08; 0; Mismatches 0; Indels
CURRENT APPLICATION NUMBER: US/10/301,822
CURRENT FILING DATE: 2002-11-21
PRIOR APPLICATION NUMBER: US 60/339,971
PRIOR FILING DATE: 2001-12-10
PRIOR APPLICATION NUMBER: US 60/361,978
PRIOR FILING DATE: 2002-03-05
PRIOR APPLICATION NUMBER: US 60/361,988
PRIOR APPLICATION NUMBER: US 60/361,988
PRIOR PILING DATE: 2002-03-05
NUMBER OF SEQ ID NOS: 228
SEQ ID NOS: 228
SEQ ID NO 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 100.0%;
Matches 19; Conservative 0;
```

```
US-10-032-376A-14
                                                                                                                                                                                                                                                                                                      US-10-032-376A-14
          LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 36
US-10-480-621-1
                                                                                                                                                                                      8
                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                  Query Match
100.0%; Score 114; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 114; DB 4; Length 660; 100.0%; Pred. No. 5e-08; Score 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 3, Application US/10447315
Fublication No. US20040071687A1
GENERAL INFORMATION:
APPLICANT: Haisid, Shahin
APPLICANT: Haisid, Reate
APPLICANT: Hattori, Koichi
APPLICANT: Hattori, Koichi
APPLICANT: Hattori, Koichi
TITLE OF INVENTION: Adult Stem Cell Recruitment
FILE REFERENCE: 1676.006US1
CURRENT PILING DATE: 2003-05-28
FRIOR FILING DATE: 2003-05-28
FRIOR FILING DATE: 2002-05-28
NUMBER OF SEQ ID NOS: 28
SOFTWARE FactSEQ for Windows Version 4.0
SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 25, Application US/10131985
; Publication No. US20030199440A1
; GENERAL INFORMATION:
; APPLICANT: Davies, Michael J
APPLICANT: Bavies, Michael J
APPLICANT: Huggins, Jonathan P
; APPLICANT: Huggins, Fraser S
APPLICANT: McIntosh, Fraser S
; APPLICANT: Occleston, Nicholas L
TITLE OF INVENTION: Composition
FILE REFERENCE: PCS 10391A
CURRENT APPLICATION NUMBER: US/10/131,985
CURRENT PILING DATE: 2000-14-30
PRIOR FILING DATE: 2000-11-30
PRIOR FILING DATE: 1999-12-29
; WUMBER OF SEQ ID NOS: 60
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 25
PRIOR APPLICATION NUMBER: US 60/312,726
PRIOR FILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 21
SSOFTWARE: PASESEQ for Windows Version 4.0
LENGTH: 660
                                                                                                                                                                                                                                                                                                        100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 PRCGNPDVANYNPPPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 100.0%;
Matches 19; Conservative (
                                                                                                                      TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                              RESULT 32
US-10-131-985-25
                                                                                                                                                             US-10-219-561-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-131-985-25
                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                    Sequence 14, Application US/10032376A; Bequence 14, Application US/10032376A; Publication No. US20040127420A1; GENERAL INFORMATION:

JENERAL INFORMATION:

TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing; FILE REFERENCE: 1443.008US1

CURRENT APPLICATION NUMBER: US/10/032,376A; CURRENT APPLICATION NUMBER: 60/312,726

PRIOR PILING DATE: 2001-08-16; PRIOR PILING DATE: 2001-08-16; PRIOR FILING DATE: 2001-08-16; PRIOR FILING DATE: 2001-08-16; PRIOR FILING DATE: 2001-08-16; DRIOR FILING DATE: 2001-08-16; DRIOR FILING DATE: EBSEST for Windows Version 4.0

SEQ ID NO 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                    Query Match 100.0%; Score 114; DB 4; Length 660; Best Local Similarity 100.0%; Pred. No. 5e-08; Matches 19; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
100.0%; Score 114; DB 4; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 4; Length 660;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-335-207-14

US-10-335-207-14

Sequence 14, Application US/10335207

Publication No. US20040127421A1

GENERAL INFORMATION:

APPLICANT: Malik, Sohail

APPLICANT: Quirk, Stephen

TITLE OF INVENTION: Method to Increase Fibronectin

FILE REFERENCE: 1443.047US1

CURRENT FILING DATE: 2002-12-30

NUMBER OF SEQ ID NOS: 21

SOFTWARE: FastSEQ for Windows Version 4.0

TYPE: FRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
100.0%; Score 114; DB 4;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                         100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                         1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDVANYNFFPRKPK 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-447-315-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ) ORGANISM: Homo sapiens
US-10-335-207-14
```

```
FUDICANT: Ulrich HAUPTS

APPLICANT: Ulrich HAUPTS

APPLICANT: Andre KOLFERMANN

APPLICANT: Andre KOLFERDIG

APPLICANT: Andre SCHEIDIG

APPLICANT: Christian VOETSMEIER

APPLICANT: Christian VOETSMEIER

APPLICANT: Christian VOETSMEIER

TITLE OF INVENTION: NEW BIOLOGICAL ENTITIES AND USE THEREOF

FILE REFERENCE: 04156.0002U4

CURRENT APPLICATION NUMBER: US/10/872,198

CURRENT FILING DATE: 2004-06-18

PRIOR APPLICATION NUMBER: 60/524,960

PRIOR APPLICATION NUMBER: EP 04003058

PRIOR PILING DATE: 2004-02-11

PRIOR PILING DATE: 2004-11-10

PRIOR PILING DATE: 2004-11-11

PRIOR PILING DATE: 2003-11-11

PRIOR PILING DATE: 2003-11-11

PRIOR PILING DATE: 2003-11-10

PRIOR PILING DATE: 2003-11-11

PRIOR PILING DATE: 2003-11-16

PRIOR PILING DATE: 2003-11-17

PRIOR PILING DATE: 2003-11-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
100.0%; Score 114; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 114; DB 5; Length 660; 100.0%; Pred. No. 5e-08;
                                                                                    APPLICANT: Tally, Sill-Thill
APPLICANT: Chirk, Stephen
APPLICANT: Kimberly-Clark Worldwide, Inc.
ITITE OF INVENTION: Anti-Chrondrosarcoma Compounds
FILE REPERENCE: 1443.0644051
CURRENT APPLICATION NUMBER: US/10/601,059
CURRENT FILING DATE: 2003-06-20
FRIOR APPLICATION NUMBER: US 10/335,207
FRIOR APPLICATION NUMBER: US 10/335,207
FRIOR PILING DATE: 2002-08-15
FRIOR FILING DATE: 2001-08-16
FRIOR FILING DATE: 2001-12-1
FRIOR PILING DATE: 2001-12-1
FRIOR FILING DATE: 2001-08-16
FRIOR F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 131, Application US/10872198
Publication No. US20050002897A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; ORGANISM: Homo sapiens
US-10-601-059-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; ORGANISM: Homo sapiens
US-10-872-198-131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 39
US-10-872-198-131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
Sequence 1, Application US/10480621

Publication No. US2004017581741

GENERAL INFORMATION:

APPLICANT: Jepson, Holly
APPLICANT: Minshull, Claire
APPLICANT: Paugit, Richard
APPLICANT: Paugit, Richard
APPLICANT: Rowsell, Sian METALLOPROTEINASE 9 (MMP9) AND THE USE OF TITLE OF INVENTION: METALLOPROTEINASE 9 (MMP9) AND THE USE OF TITLE OF INVENTION: METALLOPROTEINASE 9 (MMP9) AND THE USE OF TITLE OF INVENTION: METALLOPROTEINASE 9 (MMP9) AND THE USE OF TITLE OF INVENTION: METALLOPROTEINASE 9 (MMP9) AND THE DESIGN
TITLE OF INVENTION: METALLOPROTEINASE 9 (MMP9) AND THE USE OF TITLE OF INVENTION: MMP9 MODULATORS

FILE REFERENCE: 06275-377US1

CURRENT FILING DATE: 2003-12-12

PRIOR APPLICATION NUMBER: SE 0102298-7

PRIOR PELING DATE: 2001-06-27

NUMBER OF SEQ ID NOS: 2

SEQ ID NO 1

LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 114; DB 4; Length 660; 100.0%; Pred. No. 5e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 114; DB 4; Length 660; 100.0%; Pred. No. 5e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 208, Application US/10474794

Publication No. US20040213793A1

GENERAL INFORMATION:

APPLICANT: Carson-Malter, Eleanor

APPLICANT: St. Croix, Brad

APPLICANT: Kinzler, Memeth

TITLE OF INVENTION: ENDOTHELIAL CELL EXPRESSION PATTERNS

FILE REPREENCE: 1107.00179

CURRENT APPLICATION NUMBER: US/10/474,794

CURRENT PILING DATE: 2003-10-14

PRIOR PAPLICATION NUMBER: 60/282,850

PRIOR PLILING DATE: 2001-04-11

PRIOR PLILING DATE: 2001-04-11

PRIOR PLILING DATE: 2001-06-01

NUMBER OF SEQ ID NOS: 359

SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 38
US-10-601-059-14
; Sequence 14, Application US/10601059
, ; Publication No. US20040259802A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              : Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
Matches 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-474-794-208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-474-794-208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; TYPE: PRT
; ORGANISM: Ho
US-10-480-621-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
```

à 셤 ઠે

ö

Gaps

```
US-10-287-436A-1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-287-436A-1185
                                                                                                                                                                                                  JS-10-287-436A-489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-287-436A-489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 44
                                                                                ð
                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
    ö
    Gaps
    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 114; DB 5; Length 660; 100.0%; Pred. No. 5e-08; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              costure 2004, Application US/10979159

publication No. US20050142138A1

GENERAL INFORMATION:

APPLICANT: Bard St. Croix

APPLICANT: Bard St. Croix

APPLICANT: Reneth Kinzler

ITILE OF INVENTION: ENDOTHELIAL CELL EXPRESSION PATTERNS

FILE REFERENCE: 1107.00134

CURRENT PILION DATE: 2004-11-03

FRIOR FILING DATE: 2001-08-01

PRIOR FILING DATE: 2001-08-01

PRIOR PILING DATE: 2000-08-02

PRIOR PILING DATE: 2000-08-02

PRIOR FILING DATE: 2000-08-01

PRIOR FILING DATE: 2000-08-11

PRIOR FILING DATE: 2000-08-11

NUMBER OF SEQ ID NOS: 358

SOFTWARE FREESENCY WINDER: 2000-04-11

NUMBER OF SEQ ID NOS: 358
  0, Indels
                                                                                                                                                      US-10-901-417-25

Sequence 25, Application US/10901417

Publication No. US20050026836A1

GENERAL INFORMATION:

APPLICANT: Davies, Michael J

APPLICANT: Davies, Michael J

APPLICANT: Fish, Paul V

APPLICANT: Fish, Paul V

APPLICANT: Huggins, Jonathan P

APPLICANT: McIntosh, Fraser S

APPLICANT: McIntosh, Fraser S

APPLICANT: McIntosh, Praser S

APPLICANT: McIntosh, Praser S

APPLICANT: McIntosh, Praser S

APPLICANT: McIntosh, Praser S

PRIOR FILING DATE: 2004-07-28

PRIOR FILING DATE: 2000-11-30

PRIOR FILING DATE: 2000-11-30

PRIOR FILING DATE: 1999-12-29

NUMBER OF SEQ ID NOS: 60

SEQ ID NO 25

LENGTH: 660
  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100 PRCGNPDVANYNFFPRKPK 118
                                                                          100 PRCGNPDVANYNPFPRKPK 118
                                       1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19; Conservative
19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Homo sapiens
US-10-979-159-208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
Matches 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-979-159-208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-901-417-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO 208
LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Matches
                                                                          g
                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gapa
                                                              Gaps
                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 114; DB 5; Length 660; ilarity 100.0%; Pred. No. 5e-08; Conservative 0; Mismatches 0; Indels C
Query Match
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 114; DB 5; Length 660; 100.0%; Pred. No. 5e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1185, Application US/10287436A
; Publication No. US20050202421A1
; GENERAL INPORMATION:
   GENERAL INPORMATION:
   TITLE OF INVENTION: METHOD FOR DIAGNOSIS AND TREATMENT OF
   TITLE OF INVENTION: METHOD FOR DIAGNOSIS AND TREATMENT OF
   TITLE OF INVENTION: METHOD FOR DIAGNOSIS AND TREATMENT OF
   TITLE OF INVENTION: METHOD FOR DIAGNOSIS
   TITLE OF INVENTION: METHOD ARTHRITIS
   TITLE OF INVENTION: METHOD ARTHRITIS
   CURRENT APPLICATION NUMBER: US/10/287,436A
   CURRENT FILING DATE: 2001-10-31
   NUMBER OF SEQ ID NOS: 1446
   SOFTWARE: FEASTER OF WINDOWS VERSION 4.0
   SEQ ID NO 1185
   LENGTH: 660
                                                                                                                                                                                                                                                                                       Sequence 489, Application US/10287436A
Publication No. US20050202121A1
GENERAL INPORMATION:
TITLE OF INVENTION: METHOD FOR DIAGNOSIS AND TREATMENT OF TITLE OF INVENTION: METHOD FOR DIAGNOSIS AND TREATMENT OF TITLE OF INVENTION: METHOD FOR DIAGNOSIS AND TREATMENT OF TITLE OF INVENTION: METHOD FOR DIAGNOSIS AND TREATMENT OF TITLE OF INVENTION: PREDMATOID ARTHRITIS
CURRENT APPLICATION NUMBER: US/10/287,436A
CURRENT FILING DATE: 2002-10-31
PRIOR FILING DATE: 2001-10-31
NUMBER OF SEQ ID NOS: 1446
SOFTHARE: FASEEGE for Windows Version 4.0
SEQ ID NO 489
LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-11-021-951-131
; Sequence 131, Application US/11021951
; Publication No. US20050175581A1
                                                                                                                                              100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100 PRCGNPDVANYNFFPRKFF 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 PRCGNPDVANYNFFPRKPK 19
                                                                                                               1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 100.0
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
Matches 19; Conserv
```

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | APPLICANT: Brooks, Peter C. |
| APPLICANT: Brooks, Peter C. |
| APPLICANT: Silletti, Steven A. |
| TITLE OF INVENTION: METHODS FOR INHIBITION OF ANGIOGENESIS |
| TITLE OF INVENTION: METHODS FOR INHIBITION OF ANGIOGENESIS |
| CURRENT FILING DATE: 2003-03-28 |
| PRIOR PELLING DATE: 2002-04-23 |
| PRIOR PILLING DATE: 1999-03-23 |
| PRIOR APPLICATION NUMBER: 60/018,773 |
| PRIOR PILLING DATE: 1996-05-31 |
| PRIOR FILING DATE: 1996-05-31 |
| PRIOR FILING DATE: 1996-05-31 |
| NUMBER OF SEQ ID NOS: 47 |
| SOFTWARE: PESESSE FOR Windows Version 4.0 |
| SEQ ID NO 30 |
| LENGTH: 663 |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 100.0%; Score 114; DB 4; Length 663;
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 114; DB 4; Length 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 30, Application US/10402212
Publication No. US20040063790A1
GENERAL INFORMATION:
100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97 PRCGNPDVANYNFFPRKPK 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; ORGANISM: Gallus gallus
US-10-115-223-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; ORGANISM: Gallus gallus
US-10-402-212-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
          APPLICANT: HAUPTS, Ulrich
APPLICANT: KOLTERMANN, Andre
APPLICANT: SCHEIDIG, Andreas
APPLICANT: SCHEIDIG, Andreas
APPLICANT: SCHEIDIG, Andreas
APPLICANT: SCHEIDIG, Ulrich
APPLICANT: CACCO, Wayne Michael
TITLE OF INVENTION: New Biological Entities And The Pharmaceutical
TITLE OF INVENTION: New Biological Entities And The Pharmaceutical
TITLE OF INVENTION: New Biological Entities And The Pharmaceutical
TITLE OF INVENTION: New Biological Entities And The Pharmaceutical
TITLE OF INVENTION: NAMBER: 10/812,198
FRIOR PELICATION NUMBER: 10/812,198
FRIOR PELICATION NUMBER: 60/543,518
FRIOR APPLICATION NUMBER: 60/524,960
FRIOR APPLICATION NUMBER: EP 04003058
FRIOR PELING DATE: 2004-02-11
FRIOR PELING DATE: 2003-11-12
FRIOR PELING DATE: 2003-11-11
FRIOR APPLICATION NUMBER: EP 03025871
FRIOR APPLICATION NUMBER: EP 03025871
FRIOR APPLICATION NUMBER: EP 0302581
FRIOR PELING DATE: 2003-11-10
FRIOR PELING DATE: 2003-11-10
FRIOR FILING DATE: 2003-11-10
FRIOR FILING DATE: 2003-11-10
FRIOR FILING DATE: 2003-10-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 45
US-11-031-488-14

i Sequence 14, Application US/11031488

i Publication No. US20050239710A1

i GENERAL INFORMATION:

APPLICANT: UNIK, Stephen

TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds

FILE REFERENCE: 1443.034US1

CURRENT APPLICATION NUMBER: US/11/031,488

CURRENT FILING DATE: 2005-01-07

PRIOR FILING DATE: 2005-01-07

PRIOR PILING DATE: 2001-12-21

PRIOR FILING DATE: 2001-12-21

PRIOR PILING DATE: 2001-12-21

PRIOR PILING DATE: 2001-08-16

NUMBER OF SEQ ID NOS: 20

SOFTWARE: FASTSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 114; DB 6; Length 660; 100.0%; Pred. No. 5e-08; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 6; Length 660;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 114; DB 6; Score 114; DB 6; Best Local Similarity 100.0%; Pred. No. 5e-08; Matches 19; Conservative 0; Mismatches (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100 PRCGNPDVANYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ouery Match 100.
Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-11-021-951-131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JS-11-031-488-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 131
LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 14
```

g

>

```
NAME/KEY: DOWAIN

CHER INFORMATION: 1579)...(616)

CHER INFORMATION: Type II fibronectin collagen-binding domain proteins domain correct in collagen-binding domain proteins domain correct in the control of the contro
                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                Gaps
                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
100.0%; Score 114; DB 5; Length 1330;
Best Local Similarity 100.0%; Pred. No. 1e-07;
Matches 19; Conservative 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 48
US-10-450-763-54358
; Sequence 54358, Application US/10450763
; Publication No. US20050196754A1
; GENERAL INFORMATION:
; APPLICANT: Hyseq, Inc
; TITLE OF INVENTION:
CURRENT APPLICATION NUMBER: US/10/450,763
; CURRENT PILLING DATE: 2003-06-11
; PRIOR APPLICATION NUMBER: PCT/US01/08631
; PRIOR APPLICATION NUMBER: PCT/US01/08631
; PRIOR APPLICATION NUMBER: 09/540,217
; PRIOR PILLING DATE: 2000-03-31
; PRIOR PILLING DATE: 2000-03-31
; PRIOR PILLING DATE: 2000-03-31
; RIOR FILLING DATE: 2000-03-31
; NUMBER OF SEQ ID NOS: 60736
; SOFTWARE: CLUSTOM
; SEQ ID NO 54358
Best Local Similarity 100.0%; Pred. No. 5e-08;
Matches 19; Conservative 0; Mismatches 0; Indels
                                                                                                                                                     318 PRCGNPDVANYNFFPRKPK 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                ઠ
                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
```

Search completed: February 21, 2006, 18:35:35 Job time : 147 secs

Q

This Page Blank (Uspto)

```
GenCore version 5.1.7
(c) 1993 - 2006 Biocceleration Ltd.
                 Copyright
```

OM protein - protein search, using sw model

February 21, 2006, 08:21:13 ; Search time 12.5 Seconds (without alignments) 21.644 Million cell updates/sec Run on:

US-10-601-059-11

114 1 PRCGNPDVANYNFFPRKPK 19 Perfect score: Seguence:

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

Total number of hits satisfying chosen parameters:

108093 seqs, 14239677 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

Published Applications AA New:*

1: /cgn2_6/ptodata/1/pubpaa/US08_NEW PUB.pep:*

2: /cgn2_6/ptodata/1/pubpaa/US07_NEW PUB.pep:*

3: /cgn2_6/ptodata/1/pubpaa/US07_NEW PUB.pep:*

4: /cgn2_6/ptodata/1/pubpaa/PCT_NEW PUB.pep:*

5: /cgn2_6/ptodata/1/pubpaa/US09_NEW PUB.pep:*

6: /cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*

7: /cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*

8: /cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

ផ្ត	125, App	917, App	79, Appl	542, App	129, App	244, App	127, App	243, App	192, App	566, App	150, App	119, App	123, App	278, App	277, App	123, App	276, App	132, App	2, Appli	275, App	2, Appli	6, Appli	364, App	47, Appl	8, Appli
Description	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Seguence	Sequence	Seguence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Seguence	Sequence
ID	US-11-186-284-125	US-10-821-234-917	US-11-037-243-79	US-10-995-561-542	US-11-186-284-129	US-11-043-788-244	US-11-186-284-127	US-11-043-788-243	US-10-131-826A-192	US-10-995-561-566	US-10-503-575-150	US-11-186-284-119	US-11-186-284-123	US-11-043-788-278	US-11-043-788-277	US-11-010-239-123	US-11-043-788-276	US-11-186-284-132	US-11-044-640-2	US-11-043-788-275	US-10-495-597-2	US-11-057-047-6	US-10-467-657-364	US-10-528-031-47	US-10-965-972-8
% Query Match Length DB	660 7	708 6	483 7	267 6	267 7	444 7	477 7	477 7	513 6	513 6	19 6	469 7	470 7	225 7	276 7	314 7	360 7	7 07	7 07 7	7 07 7	264 6	761 7	447 6	1254 6	296 6
Query Match L	100.0	100.0	71.9	68.4	68.4	55.3	55.3	55.3	44.7	44.7	43.0	43.0	41.2	39.5	39.5	39.5	39.5	39.5	39.5	39.5	36.8	36.4	36.0	36.0	35.1
Score	114	114	82	78	78	63	63	63	51	51	49	49	47	45	45	45	45	45	45	45	42	41.5	41	41	40
Result No.	-	7	m	4	S	9	7	80	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

Sequence 393, App Sequence 272, App Sequence 27, App Sequence 37, App Sequence 37, App Sequence 37, App Sequence 113, App Sequence 115, App Sequence 55, App Sequence 55, App Sequence 6, App Sequence 31, App Sequence 32, App Sequence 36, App Sequence 36, App Sequence 28, App Sequence 36, App Seq	Sequence 28, Appl
US-11-024-959-393 US-11-024-959-372 US-11-13-683-3 US-10-999-866-37 US-10-999-866-37 US-11-02-924 US-11-02-621-113 US-11-124-620-3 US-11-23-683-50 US-11-23-683-50 US-11-218-821-6 US-11-299-866-36 US-10-999-866-36 US-10-499-966-36 US-11-44-248-28 US-11-44-248-28	US-11-144-222-28
~~~~	7
500 7500 3300 3300 7777 777 777 777 777 777 77	326
	34.2
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	39
00000000000000000000000000000000000000	45

ALIGNMENTS

```
WS-11-16-284-125

Sequence 1155, %pplication US/11186284

Publication No. US20050266493A1

GENERAL INPORMATION:
APPLICANT: Millennium Pharmaccuticals, Inc.
APPLICANT: Millennium Pharmaccuticals, Inc.
APPLICANT: Guillemette, Tracy L.
APPLICANT: Ganetter, Shubhangi
APPLICANT: Ganetter, Schlegel, Robert
APPLICANT: Manatter, Schlegel, Robert
APPLICANT: Monahan, John E.
APPLICANT: Manatter, Novel Genes, Compositions, KITS, AND
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
TITLE OF INVENTION: THERAPY OF COLON CANCER
FILE REPERRICE: MPMOI-029PRRM
CURRENT APPLICATION NUMBER: US/10/301,822

PRIOR APLICATION NUMBER: US 60/339,971

PRIOR APPLICATION NUMBER: US 60/319,978

PRIOR APPLICATION NUMBER: US 60/311,988

PRIOR PILING DATE: 2002-02-02

NUMBER OF SEQ ID NOS: 228

LENGTH: EASTERN FOR MINDOW VERSION 4.0

SEQ ID NO 125

LENGTH: EASTERN FOR MINDOW PERSION 4.0

SEQ ID NO 125

LENGTH: EASTERN FOR FOR MINDOW PERSION 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-11-186-284-125
```

ò

ö

Gaps

ö

Query Match 100.0%; Score 114; DB 7; Length 660; Best Local Similarity 100.0%; Pred. No. 1e-09; Matches 19; Conservative 0; Mismatches 0; Indels 0

셤

US-10-821-234-917

; Sequence 917, Application US/10821234 ; Publication No. US20050255114A1

```
FILE REFERENCE: CL001559
                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 6
                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Michele et al.
GENETIC POLYMORHISMS ASSOCIATED WITH
CARDIOVASCULAR DISORDERS AND DRUG RESPONSE, METHODS OF
DETECTION AND USES THEREOF
              APPLICANT: Labat, Ivan
APPLICANT: Stache-Crain, Birgit
APPLICANT: Stache-Crain, Birgit
APPLICANT: Tang, Y. Tom
TITLE OF INVENTION: Methods for Diagnosis and Treatment of Preeclampsia
FILE REFERENCE: 821A
CURRENT APPLICATION NUMBER: US/10/821,234
CURRENT FILING DATE: 2004-04-07
PRIOR APPLICATION NUMBER: US 60/462,047
PRIOR APPLICATION NUMBER: US 60/462,047
NUMBER OF SEQ ID NOS: 1704
SEQ ID NO 917
LENGTH: 708
LENGTH: 708
                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 114; DB 6; Length 708; 100.0%; Pred. No. 1.1e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 483;
                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          71.9%; Score 82; DB 7; 173.7%; Pred. No. 4.4e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 70, Application US/11037243

| Publication No. US20050287546A1
| GENERAL INPOMMATION:
| APPLICANT: PLOWMAN, GREGORY
| APPLICANT: WHYTE, DAVID
| APPLICANT: CARREPEEL, SEAN
| APPLICANT: CARREPEEL, SEAN
| APPLICANT: CARREPEEL, SEAN
| APPLICANT: CHARYDCZAK, GLEN
| APPLICANT: CHARYDCZAK, GLEN
| APPLICANT: SUDARSANAM, SUCHA
| TITLE OF INVENTION: NOVEL PROTEASES
| FILE REFERENCE: 038602/1214
| CURRENT APPLICATION NUMBER: US/09/808,615
| PRIOR FILING DATE: 2001-06-26
| PRIOR FILING DATE: 2000-06-26
| NUMBER OF SEQ ID NOS: 150
| SOFTWARE: PATCHILING UNCE: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-995-561-542

Sequence 542, Application US/10995561

; Publication No. US20050272054A1

; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98 PRCGVPDVANYRLFPGEPK 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14; Conservative
                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
US-10-821-234-917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 14; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: CARGILL, M
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-11-037-243-79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-11-037-243-79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 79
                                                                                                                                                                                                                                                                                                   TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
```

```
US-11-043-788-244

US-11-043-788-244

Sequence 244, Application US/11043788

Publication No. US20060014166A1

GENERAL INFORMATION:

APPLICANT: Compugen Ltd

TITLE OF INVENTION: THEREOF FOR DIAGNOSIS OF ENDOMETRIOSIS

TITLE OF INVENTION: THEREOF FOR DIAGNOSIS OF ENDOMETRIOSIS

TILLE REFERENCE: 1847.1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Guillemette, Tracy L.
APPLICANT: Guillemette, Tracy L.
APPLICANT: Guillemette, Shubhangi
APPLICANT: Schlegel, Robert
APPLICANT: Schlegel, Robert
APPLICANT: Monahan, John E.
APPLICANT: MonVERTON: NOVEL GENES, COMPOSITIONS, KITS, AND
TITLE OF INVENTION: NOVEL GENES, COMPOSITION, ASSESSMENT, PREVENTION,
TITLE OF INVENTION: THERAPY OF COLON CANCER
FILE REFERENCE: MPMO1-029PZRNM
CURRENT APPLICATION NUMBER: US/11/186,284
CURRENT APPLICATION NUMBER: US/10/301,822
PRIOR FILING DATE: 2002-11-21
PRIOR FILING DATE: 2002-11-21
PRIOR FILING DATE: 2002-12-10
PRIOR FILING DATE: 2002-03-05
PRIOR FILING DATE: 2002-03-05
PRIOR FILING DATE: 2002-05-20
NUMBER OF SEQ ID NOS: 228
SEQ ID NO 129
LENGTH: 267
                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                              68.4%; Score 78; DB 6; Length 267; 68.4%; Pred. No. 9.5e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 267;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 68.4%; Score 78; DB 7; Le
Best Local Similarity 68.4%; Pred. No. 9.5e-05;
Matches 13; Conservative 1; Mismatches 5;
                                                                                                                                                                                                                                                                                                                                        1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Millennium Pharmaceuticals, Inc.
CURRENT APPLICATION NUMBER: US/10/995,561
CURRENT FILING DATE: 2004-11-24
NUMBER OF SEQ ID NOS: 85702
SOFTWARE: PattsEQ for Windows Version 4.0
SEQ ID NO 542
LENGTH: 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 129, Application US/11186284
Publication No. US20050266493A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                              85 PRCGVPDVAEYSLFPNSPK 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            85 PRCGVPDVAEYSLFPNSPK 103
                                                                                                                                                                                                                                                                                                                                                                                            1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                        13; Conservative
                                                                                                                                                                 TYPE: PRT
; ORGANISM: Homo sapiens
US-10-995-561-542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; ORGANISM: Homo Sapiens
US-11-186-284-129
                                                                                                                                                                                                                                                                                                     Best_Local Similarity
Matches 13; Conserv
```

Gaps

;;

```
APPLICANT: Zhang, Zemin
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
TILE OF INVENTION: ACIDS ENCODING THE SAME
TILE OF INVENTION: ACIDS ENCODING THE SAME
CURRENT APPLICATION NUMBER: US/10/131,826A
CURRENT FILING DATE: 1997-06-18
PRIOR APPLICATION NUMBER: 60/059314
PRIOR PILING DATE: 1997-06-26
PRIOR APPLICATION NUMBER: 60/059113
PRIOR PLILNG DATE: 1997-09-17
PRIOR APPLICATION NUMBER: 60/059115
PRIOR PLILNG DATE: 1997-09-17
PRIOR APPLICATION NUMBER: 60/059117
PRIOR APPLICATION NUMBER: 60/059117
PRIOR APPLICATION NUMBER: 60/059117
PRIOR PLING DATE: 1997-09-17
PRIOR PLING DATE: 1997-09-17
PRIOR PLING DATE: 1997-09-17
PRIOR PLING DATE: 1997-09-17
PRIOR PLING DATE: 1997-09-18
PRIOR PLING DATE: 1997-09-18
PRIOR PLING DATE: 1997-09-19
                                                                                                                                                                                                                                           Length 477;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 6; Length 513;
                                                                                                                                                                                                                                                                                                               6; Indels
                                                                                                                                                                                                                                       Query Match 55.3%; Score 63; DB 7;
Best Local Similarity 57.9%; Pred. No. 0.029;
Matches 11; Conservative 2; Mismatches 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 51; DE
Pred. No. 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 192, Application US/10131826A Publication No. US20050245730A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                             90 PRCGVPDVGHFRTFPGIPK 108
                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      44.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Stewart, Timothy A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gerritsen, Mary E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tumas, Daniel
Watanabe, Colin K
Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Baker, Kevin P. APPLICANT: Beresini, Maureen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Godowski, Paul J.
Gurney, Austin L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Desnoyers, Luc
Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sherwood, Steven
Smith, Victoria
; NUMBER OF SEQ ID NOS: 506
; SEQ ID NO 243
; LENGTH: 477
; LYPE: PRT
; ORCANIEN: Homo sapiens
US-11-043-788-243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gao, Wei-Qiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; ORGANISM: Homo
US-10-131-826A-192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JS-10-131-826A-192
                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Compugen Ltd
TITLE OF INVENTION: NOVEL NUCLEOTIDE AND AMINO ACID SEQUENCES, AND ASSAYS AND METHODS
TITLE OF INVENTION: THEREOF FOR DIAGNOSIS OF ENDOMETRIOSIS
FILE REFERENCE: 1847.1006
CURRENT APPLICATION NUMBER: US/11/043,788
CURRENT FILING DATE: 2005-01-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: FILEMILIUM FILEMINOM FILE
                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                           Query Match 55.3%; Score 63; DB 7; Length 444; Best Local Similarity 57.9%; Pred. No. 0.027; Matches 11; Conservative 2; Mismatches 6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           55.3%; Score 63; DB 7; Length 477; 57.9%; Pred. No. 0.029;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 127, Application US/11186284
Publication No. US/0050266493A1
GENERAL INFORMATION:
APPLICANT: Millennium Pharmaceuticals, Inc.
   CURRENT APPLICATION NUMBER: US/11/043,788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-11-043-788-243

, Sequence 243, Application US/11043788

; Publication No. US20060014166A1

; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |||| ||| :: || ||
PRCGVPDVGHFRTFPGIPK 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 PRCGNPDVANYNPFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 PRCGNPDVANYNFFPRKPK 19
                                CURRENT FILING DATE: 2005-01-27
NUMBER OF SEQ ID NOS: 506
SEQ ID NO 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 55.3
Best Local Similarity 57.9
Matches 11; Conservative
                                                                                                                                                                       ; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-043-788-244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; OKGANISM: Homo Sapiens
US-11-186-284-127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 127
LENGTH: 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
```

```
APPLICANT: Millennium Prartacceuticais, inc.
APPLICANT: Millennium Prartacceuticais, inc.
APPLICANT: Guillemette, Tracy L.
APPLICANT: Guillemette, Tracy L.
APPLICANT: Guillemette, Tracy L.
APPLICANT: Schlegel, Robert
APPLICANT: Schlegel, Robert
APPLICANT: Thibodeau, Stephen N.
APPLICANT: Thibodeau, Stephen N.
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
TITLE OF INVENTION: MURBER: US, 11/186, 284
TITLE OF INVENTION: THERAPY OF COLON CANCER
TITLE OF INVENTION NUMBER: US, 11/1301, 822
PRIOR PILING DATE: 2002-01-21
PRIOR PILING DATE: 2002-11-21
PRIOR PILING DATE: 2002-11-21
PRIOR PILING DATE: 2002-12-00
PRIOR FILING DATE: 2002-05-20
NUMBER OF SEQ ID NOS: 228
SOFTWARE: FastSRQ for Windows Version 4.0
SEQ ID NO 119
LEVEL OF TRACE OF TRACE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Berger, Allison
APPLICANT: Guillemette, Tracy L.
APPLICANT: Guillemette, Tracy L.
APPLICANT: Schlegel, Robert
APPLICANT: Schlegel, Robert
APPLICANT: Monahan, John B.
APPLICANT: Thibodeau, Stephen N.
APPLICANT: Thibodeau, Stephen N.
APPLICANT: Hurgart, Lawrence J.
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
TITLE OF INVENTION: THERAPY OF COLON CANCER
TITLE OF PREVENCE: MPMO1-029P2RNM
CURRENT APPLICATION NUMBER: US/11/186,284
CURRENT PILING DATE: 2005-07-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity 47.4%; Score 49; DB 7; Length 469; 9; Conservative 2; Mismatches 8: Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: US/10/301,822
PRIOR FILING DATE: 2002-11-21
PRIOR FILING DATE: 2002-11-21
PRIOR FILING DATE: 2001-12-10
PRIOR FILING DATE: 2002-03-05
PRIOR PILING DATE: 2002-03-05
PRIOR PILING DATE: 2002-05-20
NUMBER OF SEQ ID NOS: 228
SOFTWARE: PRESEQ for Windows Version 4.0
SSOFTWARE: 470
                                    GENERAL INFORMATION: APPLICANT: Millennium Pharmaceuticals, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Millennium Pharmaceuticals, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 123, Application US/11186284
Publication No. US20050266493A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90 PRCGVPDVAQFVLTEGNPR 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 PRCGNPDVANYNFFPRKPK 19
   Publication No. US20050266493A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Homo Sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best_Local Similarity
Matches 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JS-11-186-284-123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-11-186-284-119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-503-575-150

Sequence 150, Application US/10503575

Publication No. US20050244823A1

Sequence 150, Application Vo. US20050244823A1

Sequence 150, Application No. US20050244823A1

APPLICANT: Van Veellen, Petrus Antonius

APPLICANT: Van Veellen, Petrus Antonius

TITLE OF INVENTION: NOVEL EPITOPES FOR CELIAC DISEASE AND AUTOIMMUNE DISEASES, METHOC

TITLE OF INVENTION: DETECTING THOSE AND NOVEL NON-ANTIGENIC FOOD COMPOUNDS

TITLE OF INVENTION: DETECTING THOSE AND NOVEL NON-ANTIGENIC FOOD COMPOUNDS

CURRENT APPLICATION NUMBER: US/10/503,575

CURRENT FILING DATE: 2003-02-04

PRIOR PILING DATE: 2003-02-04

PRIOR PILING DATE: 2003-02-04

NUMBER OF SEQ ID NOS: 340

SOFTHARE: Patentin version 3.1

SOFTHARE: Patentin version 3.1
   ö
                                                                                                                                                                                                                                                                    US-10-955-561-566

| Sequence 566, Application US/10995561
| Sequence 566, Application US/1099561
| Sequence 566, Application US/1099561
| Sequence 566, Application US/1099561
| GENERAL INFORMATION: GENETIC POLYMORPHISMS ASSOCIATED WITH
| TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
| TITLE OF INVENTION: DETECTION AND USES THEREOF
| TITLE OF INVENTION: DETECTION AND USES THEREOF
| FILE REFERENCE: CLOO1559
| CURRENT FILING DATE: 2004-11-24
| NUMBER OF SEQ ID NOS: 85702
| SOFTMARE: FASTSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 51; DB 6; Length 513; Pred. No. 2; 1; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 43.0%; Score 49; DB 6; Length 19; Best Local Similarity 47.4%; Pred. No. 0.14; Matches 9; Conservative 2; Mismatches 8; Indels
4; Indels
   1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-11-186-284-119 ; Sequence 119, Application US/11186284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 PRCGNPDVANYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRCGVPDVAQFVLTEGNPR 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 61.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 89 PRCGVPDVGQYGY 101
                                                                  1 PRCGNPDVANYNF 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 PRCGNPDVANYNF 13
   8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Homo sapiens
US-10-503-575-150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-995-561-566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 566
LENGTH: 513
   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 12
                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
```

```
Sequence 277, Application US/11043788;
Publication No. US20060014166A1
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: THEREOF FOR DIAGNOSIS OF ENDOMETRIOSIS
TITLE OF INVENTION: THEREOF FOR DIAGNOSIS OF ENDOMETRIOSIS
TITLE OF INVENTION: THEREOF FOR DIAGNOSIS OF ENDOMETRIOSIS
CURRENT APPLICATION NUMBER: US/11/043,788
CURRENT FILING DATE: 2005-01-27
NUMBER OF SEQ ID NOS: 506
SEQ ID NO 277
LENGTH: 276
                                                                                                                                                                                                                                                                                 US-11-043-788-278

Sequence 278, Application US/11043788

Sequence 278, Application US/11043788

Publication No. US20060014166A1

GREELL TIPE OF UNCENTION: NOVEL NUCLECTIDE AND AMINO ACID SEQUENCES, AND ASSAYS AND METHODS

TITLE OF INVENTION: THREOF FOR DIAGNOSIS OF ENDOMETRIOSIS

FILE REFERENCE: 1847-1006

CURRENT APPLICATION NUMBER: US/11/043,788

CURRENT FILING DATE: 2005-01-27

NUMBER OF SEQ ID NOS: 506

SEQ ID NO 278

LENGTH: 225
                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   O; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                 Gaps
                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 39.5%; Score 45; DB 7; Length 225; Best Local Similarity 50.0%; Pred. No. 6.8; Matches 7; Conservative 2; Mismatches 5; Indels
                                                                Query Match 41.2%; Score 47; DB 7; Length 470; Best Local Similarity 44.4%; Pred. No. 7.1; Matches 8; Conservative 3; Mismatches 7; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 7; Length 276;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 39.5%; Score 45; DB 7
Best Local Similarity 50.0%; Pred. No. 8.3;
Matches 7; Conservative 2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Search completed: February 21, 2006, 08:26:28
Job time : 13.5 secs
                                                                                                                                                                               90 PRCGVPDLHHFREMPGGP 107
                                                                                                                                                        1 PRCGNPDVANYNFFPRKP 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97 PRCGVPDLGRFQTF 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97 PRCGVPDLGRFQTF 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDVANYNFF 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 PRCGNPDVANYNFF 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
CORGANISM: Homo sapiens
US-11-043-788-278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Homo sapiens
US-11-043-788-277
; ORGANISM: Homo Sapiens
US-11-186-284-123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-11-043-788-277
                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
```

This POSS 8/0/14 (USD10)

GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd. Copyright

OM protein - protein search, using sw model

February 21, 2006, 07:54:15 ; Search time 13.9737 Seconds (without alignments) 61.970 Million cell updates/sec Run on:

US-10-601-059-12 54 1 PRCGNPDVA 9 Title: Perfect score: Sequence: BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

283416 seqs, 96216763 residues Searched:

283416 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

1: Pirl:* 2: pir2:* 3: pir3:* 4: pir4:* PIR 80:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		gelatinase A (EC 3	gelatinase A (EC 3	4	gelatinase A (EC 3	gelatinase A (EC 3	zinc metalloprotei	hypothetical prote	9	matrilysin (EC 3.4	interstitial colla		interstitial colla	interstitial colla	matrix metalloprot	probable matrix me	amidophosphoribosy	pro-matrix metallo	macrophage elastas	interstitial colla	metalloelastase HM	ო	ŏ	٦	~	~	stromelysin 2 (EC	٦	ч	stromelysin 1 (EC
SUMMARIES	ΩI	815	870365	A42496	S34780	S46492	•		KCHUM	A57490	KCRBI	KCBOI	KCHUI		JC5743		F82253			A23685	A49499	A53711	S29243	KCRTIH	JC6505	KCHUS2	KCRTS2	KCHUS1	KCMSS1	KCRBS1
	DB	٦	7	7	7	٦	7	~	Н	7							7	N	~	~	~	7	~	Н	٦	٦	ч	٦	٦	٦
	Length	099	662	662	662	663	377	378	267	267	468	469	469	469	483	521	504	82	462	466	470	471	472	475	476	476	476	477	477	478
de	Query	100.0	100.0	100.0	100.0	100.0	97.6	97.6	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	77.8	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9
	Score	54	54	54	54	54	20	20	45	45	45	45	45	45	45	45	42	41	41	41	41	41	41	41	41	41	41	41	41	41
	Result No.	1	7	m	4	2	9	7	60	σ	10	11	12	13	14	15	16	17	18	19	20		22	23	24	25	26	27	28	53

envelysin (EC 3.4.	probable RNA-direc	probable RNA-direc	gelatinase B (EC 3	. gelatinase B (EC 3	gelatinase B (EC 3	probable metallopr	stromelysin 3 (EC	gelatinase B (EC 3	ribonucleoside-tri	F22M8.8 protein -	slit-1 protein hom	metalloproteinase			
S12805	RRVQLL	RRVQWA	A53796	JC4364	S62907	146031	I52580	JC1456	T08836	I51645	A34458	AC1058	D86151	T42218	T51957
N	-	-	Н	7	~	н	-	7	~	н	ч	~	~	7	7
587	616	919	707	708	708	712	730	730	305	477	707	712	882	1531	341
75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	74.1	74.1	70.4	70.4	70.4	70.4	68.5
		_		-	ᅼ	디	41	41	40	40	38	38	38	38	37
41	41	4	4	4	4	•	•								

ALIGNMENTS

RESULT 1

gelatinase A (EC 3.4.24.24) precursor - human NyAlternate names: collagenase type IV; matrix metalloproteinase 2 (WMP2); progelatinase C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 28-Aug-1989 #sequence revision 07-Jul-1995 #text change 09-Jul-2004
C;Accession: A28153; A34202; A42225; A60187; S13858; S39436; A31480; S44432; A61498; S55
A;Collier, I.E.; Wilhelm, S.M.; Eisen, A.Z.; Marmer, B.L.; Grant, G.A.; Seltzer, J.L.; K
J. Biol. Chem. 263, 6579-6587, 1988
A;Title: H-ras oncogene-transformed human bronchial epithelial cells (TBE-1) secrete a s
A;Reference number: A28153; MUID:88198218; PMID:2834383

A; Mediccule type: mRNA
A; Residues: 30-660 <CCL>
A; Residues: 30-660 <CCL>
A; Residues: 30-660 <CCL>
A; Cross-references: UNIPROT:P08253; UNIPARC:UPI0000172CE7; GB:J03210; NID:g180670; PIDN A; Cross-references: UNIPROT:P08253; UNIPARC:UPI000172CE7; GB:J03210; NID:g180670; PIDN B; Huhtala; P:; Eddy, R.L.; Fan, Y.S.; Byers, M.G.; Shows, T.B.; Tryggvason, K. Genomics 6, 554-559, 1990
A; Title: Completion of the primary structure of the human type IV collagenase preproenzy A; Reference number: A34202; MUID:90228972; PMID:2158484

A; Accession: A34202

A;Molecule type: DNA
A;Residues: 1-51 <HU2>
A;Residues: 1-51 <HU2>
A;Residues: 1-51 <HU2>
A;Cross-references: UNIPARC:UPI000016A6E3; GB:M33789; NID:g180600; PIDN:AAA52027.1; PID:
B;Huhtala, P.; Chow, L.T.; Tryggvason, K.
J. Biol. Chem. 265, 11077-11082, 1990
A;Title: Structure of the human type IV collagenase gene.
A;Reference number: A42225; MUID:90293047; PMID:2162831
A;Accession: A42225

A;Status: not compared with conceptual translation
A;Molecule type: DNA
A;Residues: 1-51;220-393 <HUH>
A;Residues: 1-51;220-393 <HUH>
A;Residues: 1-51;220-393 <HUH>
A;Cross-references: UNIPARC:UPI00016A6E3; UNIPARC:UPI0000172CE8; GB:M55593; GB:J05471;
A;Cross-references: UNIPARC:UPI00016A6E3; UNIPARC:UPI0000172CE8; GB:M55593; GB:J05471;
A;Note: neither the complete amino acid nor the complete nucleotide sequence is given in R;Frisch, S.M.; Reich, R.; Collier, I.E.; Genrich, L.T.; Martin, G.; Goldberg, G.I.
Oncogene 5, 75-83, 1990
A;Frile: Adenovirus ElA represses protease gene expression and inhibits metastasis of hu
A;Reference number: A60187; MUID:90206614; PMID:2157183

A;Status: not compared with conceptual translation A;Molecule type: DNA A;Residues: 1-58 <FRI>

A; Cross-references: UNIPARC: UPI0000172CE9

Rjokada, Y.; Morodomi, T.; Enghild, J.J.; Suzuki, K.; Yasui, A.; Nakanishi, I.; Salvesen Bur. J. Balochem. 194, 721-730, 1990 A;Title: Matrix metalloproteinase 2 from human rheumatoid synovial fibroblasts. Purifica A;Reference number: S13858; MUID:91099351; PMID:2269296

A; Molecule type: protein A; Residues: 30-45;110-124 <OKA> A; Cross-references: UNIPARC: UPI0000172CEA; UNIPARC: UPI0000172CEB R; Crabbe, T.; Ioannou, C.; Docherty, A.J.P. Bur. J. Biochem. 218, 431-438, 1993

```
NyAlternate names: matrix metalloproteinase-2; type IV collagenase
C; Species: Oryctolagus cuniculus (domestic rabbit)
C; Species: Oryctolagus cuniculus (domestic rabbit)
C; Date: 2:L-Apr-1997 #sequence_revision 09-May-1997 #text_change 09-Jul-2004
C; Accession: 370365
R; Matsumoto, S.; Katoh, M.; Watanabe, T.; Masuho, Y.
R; Matsumoto, S.; Katoh, M.; Watanabe, T.; Masuho, Y.
A; Title: Molecular Acta 1307, 137-139, 1996
A; Title: Molecular cloning of rabbit matrix metalloproteinase-2 and its broad expression
A; Reference number: $70365; MUID:96283805; PMID:8679695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A Molecule Type: mENA

A; Residues: 1-662 < MAT>

A; Cross-references: UNIPROT: PS0757; UNIPARC: UP1000012F23F; EMBL: D63579; NID: 9944816; PIDI

A; Cross-references: UNIPROT: PS0757; UNIPARC: UP1000012F23F; EMBL: D63579; NID: 9944816; PIDI

C; Superfamily: gelatinase A; fibronectin type II repeat homology <2F1>

F; 233-224/Domain: fibronectin type II repeat homology <2F2>

F; 291-332/Domain: fibronectin type II repeat homology <2F2>

F; 349-390/Domain: fibronectin type II repeat homology <2F2>

F; 465-662/Domain: fibronectin type II repeat homology <2F9>

F; 465-662/Domain: fibronectin type II repeat homology <2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Date: 04-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 54; DB 2
100.0%; Pred. No. 0.13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gelatinase A (EC 3.4.24.24) precursor - mouse N;Alternate names: collagenase type IV, 72K C;Species: Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ilarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
19; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Accession: S70365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Title: Human progelatinase A can be activated by autolysis at a rate that is concentra A;Reference number: 839436; MUID:94094834; PMID:8269931 A;Accession: 839436 A;Accession: 839446 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R,Brown, D.; Chwa, M.; Escobar, M.; Kenney, M.C.
Exp. Eye Res. 52, 5-16, 1991
A,Title: Characterization of the major matrix degrading metalloproteinase of human corne
A,Reference number: A61498; MUID:91330998; PMID:1868885
                                                                                                                                                                 A;Residues: 30-44,444-456 <CR2>
A;Residues: 30-44,444-456 <CR2>
A;Cross-references: UNIPARC:UPI00000723BF; UNIPARC:UPI0000172CEC

R;Across-references: UNIVARC:UPI000000723BF; UNIPARC:UPI0000172CEC

B;Stetler-Stevenson, W.G.; Krutzach, H.C.; Wacher, M.P.; Margulies, I.M.K.; Liotta, L.A.

J. Biol. Chem. 264, 1353-1356, 1989

J. Biol. Chem. 264, 1353-1356, 1989

A;Title: The activation of human type IV collagenase proenzyme. Sequence identification

A;Reference number: A31480; MUID:89109136; PMID:2536363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             F;573,642/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 54; DB 1; Length 660; 100.0%; Pred. No. 0.13; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: protein
A; Residues: 110-123 <STRS-
A; Cross-references: UPLDARC: UPL0000158DA9
A; Crabbe, T.; Smith, B.; O'Connell, J.; Docherty, A.
FEBS Lett. 345, 14-16, 1994
A; Title: Human progelatinase A can be activated by matrilysin.
A; Accession: S44432; MUID: 94252395; PMID: 8194591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    F,469-660/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Accession: A61498
A;Molecule type: protein
A;Residues: 'X',31,'X',33-46,'X',48-50,'Q'
A;Cross-references: UNIPARC:UPI0000172CEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Molecule type: protein
A;Residues: 110-115 <CRA>
A;Cross-references: UNIPARC:UP10000172CED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
```

Gaps

ö

Indels

ô

2; Length 662;

```
ö
                         Gaps
                         .
0
100.0%; Score 54; DB 2; Length 662; 100.0%; Pred. No. 0.13;
                        Indels
                        ..
0
                         0; Mismatches
                                                                                                     RESULT
```

100 PRCGNPDVA 108

```
A,Status: translated from GB/EMBL/DDBJA;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity luv.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 100.
Matches 8; Conservative
                             |||||||||||||||
PRCGNPDVA 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRCGNPDV 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1-378 <STO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Status: preliminary
A;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                              C; Accession: T00643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C,Genetics:
A,Gene: ATSP:F316.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Accession: T00643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Accession: E96724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Map position: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Map position: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C,Genetics:
A,Gene: F20P5.11
                                                                          93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Residues:
                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A Molecule Lype: mRNA
Asesidues: "X."3-652 - WAR>
A;Residues: "X."3-652 - WAR>
A;Cross-references: UNIPARC: UPI0000175D90; EMBL: X71466
C;Superfamily: gelatinase A; fibronectin type II repeat homology; hemopexin repeat homol
C;Superfamily: gelatinase A; fibronectin type II repeat homology <2F1>
F:233-274/Domain: fibronectin type II repeat homology <2F1>
F:291-332/Domain: fibronectin type II repeat homology <2F8>
F:349-390/Domain: fibronectin type II repeat homology <2F8>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A,Cross-references: UMIPROT: P33436; UNIPARC:UP1000012F240; EMBL:X71466; NID:g311750; PID R;Marti, H.P.; McNeil, L.; Davies, M.; Martin, J.; Lovett, D.H.
Biochem. J. 291, 441-446, 1993
A;Title: Homology cloning of rat 72 kDa type IV collagenase: cytokine and second-messeng A;Reference number: 832525; MUID:93249363; PMID:7916617
A;Accession: 832525
A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: UNIPROT:090611; UNIPARC:UP1000012F23E; EMBL:U07775; NID:9504475; PID
A;Note: in the authors' translation 205-Asp is shown after residue 201 and, consequently
C;Superfamily: gelatinase A; fibronectin type II repeat homology; hemopexin repeat homol
C;Keywords: hydrolase; metalloproteinase; zimc; zymogen
F;67-216,391-443/Domain: matrix metalloproteinase homology aftatus atypical and the propertion of the p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   F;99,400,404,410/Binding site: zinc, catalytic (Cys, His, His, His) (inhibited) #status F;400,404,410/Binding site: zinc, catalytic (His) (active) #status predicted F;401/Active site: Glu #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Section 5
Set 3.4.24.24) precursor - chicken
C;Species: Gallus gallus (chicken)
C;Species: Gallus gallus (chicken)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: S46492
R;Aimes, R.T.; French, D.L.; Quigley, J.P.
Biochem. J. 300, 729-736, 1994
A;Title: Cloning of a 72 kDa matrix metalloproteinase (gelatinase) from chicken embryo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
gelatinase A (EC 3.4.24.24) precursor - rat
N;Alternate names: collagenase type IV
C;Species: Rattus norvegicus (Norway rat)
C;Date: 22-Nov-1993 #sequence_revision 01-Dec-1995 #text_change 09-Jul-2004
C;Accession: S34780; S32525
R;Lovett, D.H.
R;Lovett, D.H.
A;Reference number: S34780
A;Accession: S34780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 54; DB 1; Length 663; ilarity 100.0%; Pred. No. 0.13; Conservative 0; Mismatches 0: Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 54; DB 2; Length 662; 100.0%; Pred. No. 0.13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100...
9, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Residues: 1-663 <AIM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Status: preliminary
A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Accession: S46492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
Dypotherical protein F20P5.11 [imported] - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Bate: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-Jul-2004
C;Accession: B96724
R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alonso, Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, K.; Nature 408, 816-820, 2000
A;Authors: Hunter, J.L.; Johkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.C.A.; Li, J.H.; Li, Y.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziali, Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
A;Authors: Salzbery, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, Ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.
A;Title: Sequence and analysis of chromsome 1 of the plant Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            matrilysin (EC 3.4.24.23) precursor - human
N;Alternate names: matrin; matrix metalloproteinase 7 (MMP7); probable metalloproteinase
N;Contains: promatrilysin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: UNIPROT:004529; UNIPARC:UP100000A9048; GB:AE005173; NID:92194124; PI
                                                                                                                               R;Federspiel, N.A.; Palm, C.J.; Conway, A.B.; Kurtz, D.B.; Conway, A.R.; Au, M.; Araujo, ; Vyaotskaia, V.S.; Yu, G.; Ecker, J.; Theologis, A.; Davis, R.W. submitted to the EMBL Data Library, February 1998
A;Reference number: Z14197
                                                                                                                                                                                                                                                                                                                                                                                               A;Residues: 1-377 <FED>
A;Cross-references: UNIPROT:O48680; UNIPARC:UPI0000AB794; EMBL:AC002396; NID:g2749918;
A;Experimental source: cultivar Columbia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
zinc metalloproteinase homolog F316.6 - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 01-Feb-1999 #sequence_revision 01-Feb-1999 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 378;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 2;
0.37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 2;
0.37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 92.6%; bred. No. ...
100.0%; Pred. No. ...
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         92.6%; Score 50; 100.0%; Pred. No.
```

And the second

ö

Gaps

4

His, His) (inhibited) #status |

ö

Gaps

ö

```
interstitial collagenase (EC 3.4.24.7) precursor - rabbit
interstitial collagenase (EC 3.4.24.7) precursor - rabbit
NiAlternate names: fibroblast collagenase; matrix metalloproteinase 1 (MMP1); tissue col.
C.Species: Oryctolagus cuniculus (domestic rabbit)
C.Date: 30-Sep-1992 #sequence_revision 30-Sep-1992 #text_change 09-Jul-2004
C.Accession: A27500; B27500; I46694
B.C.Accession: A27500; B27500; IM.; Mayer, A.S.; Gross, R.H.; Brinckerhoff, C.E.
Biochemistry 26, 6156-6165, 1987
A;Title: A gene for rabbit synovial cell collagenase: member of a family of metalloprote: A;Reference number: A27500
A;Accession: A27500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A,Cross-references: UNIPARC:UP10000172CC6; UNIPARC:UP10000172CC7; GB:M17820
A;Note: the location of the intron between exons 7 and 8 is approximate
A;Note: the location of the intron between exons 7 and 8 is approximate
Coll. Relat. Ne.; Austin, S.D.; Holt, P.T.; Ruby, P.L.; Gross, R.H.; White, H.D.; Brinckerhol
Coll. Relat. Res. 6, 239-248, 1986
A;Title: Homology between exon-containing portions of rabbit genomic clones for synovial
A;Reference number: 146694; MUID:87029174; PMID:3021384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A.Molecule type: mRNA
A.Residues: 449-468 <FT3>
A.Cross-references: UNIPARC:UPI000016C460; GB:M25663; NID:g531211; PIDN:AAA31203.1; PID:g
C;Comment: This enzyme cleaves collagens of types I, II, and III at a Gly-Ile site in the
C;Comment: Procollagenase can be activated without removal of the activation peptide. St:
Lion peptide by other proteinases.
C;Comment: Procollagenase is found in glycosylated and unglycosylated forms, both of whice
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Description: hydrolyzes collagens, in particular types I, II, III, and X, serpins, and C; Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloproteir C; Keywords: calcium; extracellular matrix; fibroblast; glycoprotein; hydrolase; metallop: F;1-18/Domain: signal sequence #status predicted <SIG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      F;19-468/Product: procollagenase #status predicted <PRO>
F;19-98/Domain: activation peptide #status predicted <ACT>
F;19-260/Domain: matrix metalloproteinase homology <MMP>
F;89-56/Region: autoinhibitory
F;89-468/Product: interstitial collagenase #status predicted <MAT>
F;99-468/Product: interstitial collagenase #status predicted <MAT>
F;91-465/Domain: hemopexin repeat homology <PXN>
F;91-465/Domain: hemopexin repeat homology <PXN>
F;911-412/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;117,221,227/Binding site: zinc, catalytic (His) (active) #status predicted
F;218/Active site: Glu #status predicted
                   C; Keywords: hydrolase; metalloproteinase; zinc; zymogen
F;1-20/Domain: signal sequence #status predicted <51G>
F;1-20/Domain: matrilysin #status predicted <MAT>
F;58-262/Domain: matrilysin #status predicted <MAT>
F;96.21, 221, 221/Binding site: zinc, catalytic (Cys, His, His, His) (inhibite
F;217, 221, 221/Binding site: zinc, catalytic (His) (active) #status predicted
F;218/Active site: Glu #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Introns: 34/3; 116/2; 166/1; 208/1; 260/1; 299/2; 344/1; 398/1; 433/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Cross-references: UNIPROT: P13943; UNIPARC: UPI000012F23B; GB: M19240
                                                                                                                                                                                                                                                                                DB 2; Length 267;
2;
                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                     ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 45; DB 1,
Pred. No. 3.3;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                       Score 45;
Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            F;277-465/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A, Accession: 146694
A, Status: translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      83.3%;
                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 88.9%;
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Accession: B27500
A;Molecule type: DNA
A;Residues: 1-391;399-468 <FI2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     88 PRCGVPDVA 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C; Function:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1992 #sequence revision 30-Sep-1992 #text_change 09-Jul-2004
C;Date: 30-Sep-1992 #sequence revision 30-Sep-1992 #text_change 09-Jul-2004
C;Date: 30-Sep-1992 #sequence revision 30-Sep-1992 #text_change 09-Jul-2004
C;Auler, D.; Quantin, B.; Gesnel, M.C.; Millon-Collard, R.; Abecassis, J.; Breathmach, Biochem. J. 253, 187-192, 1988
A;Feference number: A90339; MUID:88339885; PMID:2844164
A;Accession: B28816
A;Accession: A60539; MUID:91070531; FMID:2253219
A;Accession: A60539; MUID:91070531; PMID:2253219
A;Accession: A60539; MUID:91070531; PMID:2253219
A;Molecule type: Drotein
A;Residues: 18-35, X; 37-42 AMIY>
A;Accession: A60539; MUID:91070531; PMID:2553219
A;Molecule type: Drotein
A;Residues: 18-35, X; 37-42 AMIY>
A;Cross-references: UNIPARC:UP10000172CE6
B;Artil: Molecular characterization of a low-molecular-mass matrix metalloproteinase sec A;Reference number: S24324; MUID:9235951; PMID:1497627
A;Title: Molecular characterization of a low-molecular-mass matrix metalloproteinase sec A;Reference number: S24324; MUID:9235951; PMID:1497627
A;Gtatus: Prefilminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 9
A57490
matrilysin (EC 3.4.24.23) precursor - rat
NALlernate names: matrix metalloproteinase 7 (MMP7)
C; Species: Rattus norvegicus (Norway rat)
C; Species: Rattus norvegicus (Norway rat)
C; Date: 08-Dec-1995 #sequence_revision 08-Dec-1995 #text_change 09-Jul-2004
C; Accession: A57490
R; Abramson, S.R.; Conner, G.E.; Nagase, H.; Neuhaus, I.; Woessner Jr., J.F.
J. Biol. Chem. 270, 16016-16022, 1995
A; Title: Characterization of rat ucerine matrilysin and its cDNA. Relationship to human
A; Reference number: A57490
A; Accession: A57490
A; Accession: A57490
A; Status: prolliminary
A; Molecule type: mRNA
A; Residues: 1-267 < ABR>
A; Cross-references: UNIPROT: P50280; UNIPARC: UPI000012F244; GB:L24374; NID:g402492; PIDN:
C; Superfamily: matrilysin; matrix metalloproteinase homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Molecule type: DNA
A;Residues: 1-267 <MAR:
A;Cross-references: UNIPARC:UPI00000422BD; EMBL:Z11887; NID:g35802; PIDN:CAA77942.1; PID
C;Comment: This enzyme is similar in its activity to stromelysin and degrades various ex
s of types II, IV, IX, X, and XI.
C;Comment: Matrilysin hydrolyzes peptide bonds in plasminogen to yield a fragment with a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    83.3%; Score 45; DB 1; Length 267; 88.9%; Pred. No. 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity 88.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |||| ||||
PRCGVPDVA 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Loc
Matches
```

ઠે

ö

Gaps

PI

```
;Cross-references: UNIPARC:UPI000016A6ED; GB:M16567; NID:g180668; PIDN:AAA52033.1; PID:
;Goldberg, G.I.; Wilhelm, S.M.; Kronberger, A.; Bauer, E.A.; Grant, G.A.; Eisen, A.Z.
slol. Chem. 261, 6600-6605, 1986
filtle: Human fibrolast collagenase. Complete primary structure and homology to an onc
;Reference number: A00996; MUID:86196089; PMID:3009463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Residues: 1-114, 'R', 116-409,'S', 411-469 <GOL>
A; Cross-references: UNIPARC:UP10000141EC4; GB:M13509; NID:g180664; PIDN:AAA35699.1; PID: A; Orces: part of this sequence was confirmed by protein sequencing of the proenzyme R; Whitham, S.E.; Murphy, G.; Angel, P.; Rahmsdorf, H.J.; Smith, B.J.; Lyons, A.; Harris, Biochem. J. 240, 913-916, 1986
A; Title: Comparison of human stromelysin and collagenase by cloning and sequence analysi A; Reference number: A90336; WUID:87156645; PMID:3030290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Residues: 1-199, H', 201-207, T', 209-469 <WHI>
A; Cross-references: UNIPARC:UP10000172CBD; EMBL:X05231; NID:g38266; PIDN:CAA28858.1; PID
A; Cross-references: UNIPARC:UP10000172CBD; EMBL:X05231; NID:g38266; PIDN:CAA28858.1; PID
A; Note: parts of this sequence, including the amino end of the proenzyme and of the matu
R; Birkedal-Hansen, B.; Moore, W.G.I.; Taylor, R.E.; Bhown, A.S.; Birkedal-Hansen, H.
Biochemistry 27, 6731-6788, 1988
A; Title: Monoclonal antibodies to human fibroblast procollagenase. Inhibition of enzymat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A,Molecule type: protein

A,Molecule type: protein

A,Residues: 100-1012, P.,104-107,'XX',110-112;270-277,'X',279-280,'X',282-287 <CLA>

A,Gross-references: UNIPARC:UDIO000172CBF; UNIPARC:UPI0000172CC0

R,Lark, M.W.; Walakovits, L.A.; Shah, T.K.; Vanmiddlesworth, J.; Cameron, P.M.; Lin, T.Y

Connect. Tissue Res. 25, 49-65, 1990

A,Title: Production and purification of prostromelysin and procollagenase from IL-1 beta

A,Reference number: A60964; MUID:91059606; PMID:2173990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Molecule type: protein ;Residues: 24-35;100-108;270-272,'X',274,'X',276 <LAR>
;Cross-references: UNIPARC:UP10000172CC1; UNIPARC:UP10000172CC3; UNIPARC:UP10000172CC3; Saluki, K.; Nagase, H.; Ito, A.; Enghlid, J.J.; Salvesen, G.
;Suzuki, K.; Nagase, H.; Ito, A.; Enghlid, J.J.; Salvesen, G.
iol. Chem. Hoppe-Seyler 371(Suppl.), 305-310, 1990
;Title: The role of matrix metalloproteinase 3 in the stepwise activation of human rheu.;Reference number: S10595; MUID:90380300; PMID:2169257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Biochem. J. 305, 301-306, 1995
A;Title: Activation of precursors for matrix metalloproteinases 1 (interstitial collagen
A;Reference number: S53438; WUID:95126921; PMID:7826345
                                                                                                                                                                                                                                                                                                                                                                                                                           gene i
                        A;Title: Molecular cloning of human synovial cell collagenase and selection of a single A;Reference number: $22766; MUID:87109799; PMID:3027129
                                                                                                                                                                                     A; Molecule type: DNA
A; Residues: 1-63,65-70 cBR1>
A; Residues: 1-63,65-70 cBR1>
A; Residues: 1-63,65-70 cBR1>
A; Cross-references: UNIPARC: UP10000172CBC; EMBL: M15996; NID: g180666; PIDN: AAA35700.1;
A; Cross-references: UNIPARC: UP10000172CBC; EMBL: M15, Rahmsdorf, H.J.; Herrlich, P.
Mol. Cell. Biol. 7, 2256-2266, 1987
Mol. Cell. Biol. 7, 2256-2266, 1987
A; Title: 12-0-terradecanoyl-phorbol-13-acetate induction of the human collagenase gene A; Feference number: 157620; MUID: 87257941; PMID: 3037355
A; Accession: 157620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             iochem. J. 263, 201-206, 1989
Title: Fragments of human fibroblast collagenase. Purification and characterization.
Reference number: S06132, MUID:90104231; PMID:2557822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A,Cross-references: UNIPARC:UP10000172CC4
R,Suzuki K.; Lees, M.; Newlands, G.F.J.; Nagase, H.; Woolley, D.E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;Reference number: A44518; MUID:89062403; PMID:2461732;Accession: A44518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Molecule type: protein
A;Residues: 270-305 <BIR>
A;Cross-references: UNIPARC:UP10000172CBE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of the activated enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Clark, I.M.; Cawston, T.E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: protein A; Residues: 20-102 <SUZ>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Molecule type: DNA Residues: 1-35 <RES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Accession: A00996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Accession: D29157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Accession: S06132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Accession: B60964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A, Accession: S10595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Accession: S53438
                                                                                                                                                                                                                                                                                  N.Alternate names: fibroblast collagenase; matrix metalloproteinase 1 (MMP1); tissue col CiSpecies: Bos primigenius taurus (cattle) (CiSpecies: Bos primigenius taurus (cattle) (CiDate: 30-Sep-1992 #sequence revision 30-Sep-1992 #text_change 09-Jul-2004 (CiAccession: S14654; S20336; S14655 SP.Tamura, M.; Shimokawa, H.; Sasaki, S. submitted to the EMBL Data Library, March 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: mRNA
A; Residues: 1-468 <TMN
A; Cross-tences: UNIPROT: P28053; UNIPARC: UP1000012F238; EMBL: X58256; NID: 9259; PIDN: C
A; Sudbeck, B.D.; Jeffrey, J.J.; Welgus, H.G.; Mecham, R.P.; McCourt, D.; Parks, W.C.
Arch. Blochem. Blophys. 283, 370-376, 1992
A; Title: Purification and characterization of bovine interstitial collagenase and tissue
A; Reference number: $20336; MUID: 92161820; PMID: 1311165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Description: hydrolyzes collagens, in particular types I, II, and X, serpins, and C; Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloprotei C; Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloprotei C; Keywords: calcium; extracellular matrix; fibroblast; glycoprotein; hydrolase; metallop F; 11-18/Domain: signal sequence #status predicted <SIG; P; 19-96/Product: procollagenase #status predicted <PRO> F; 19-96/Domain: matrix metalloproteinase homology <PRO> F; 10-99/Product: protoinibitory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   interstitial collagenase (EC 3.4.24.7) precursor [validated] - human NA1ternate names: fibroblast collagenase; matrix metalloproteinase 1 (MMP1); tissue col C; Species: Homo sapiens (man)
C; Accession: A37308; S22766; E5760; A00996; D29157; A44518; S06132; B60964; S10595; S53
R; Templeton, N.S.; Brown, P.D.; Levy, A.T.; Margulies, I.M.K.; Liotta, L.A.; Stetler-Ste Cancer Res. 50, S431-5437, 1990
A; Title: Cloning and characterization of human tumor cell interstitial collagenase.
A; Reference number: A37308; MUID:90352587; PMID:2167156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Residues: 19-21,'FP',24-29,'L',31-34,'LL',37-39,'F';86-105,'NPR',109-112,'D',114-125 < A;Cross-references: UNIPARC:UPI0000172CC8; UNIPARC:UPI0000172CC9
C;Comment: This enzyme cleaves collagens of types I, II, and III at a Gly-Ile site in th C;Comment: Procollagenase can be activated without removal of the activation peptide. St tion peptide by other proteinases.
C;Comment: Procollagenase is found in glycosylated and unglycosylated forms, both of while
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: UNIPROT:P03956; UNIPARC:UP100000422BA; GB:X54925; NID:g30125; PIDN:C
R;Brinckerhoff, C.B.; Ruby, P.L.; Austin, S.D.; Fini, M.E.; White, H.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      F;272-466/Domain: hemopexin repeat homology <PXN>
F;272-466/Domain: hemopexin repeat homology <PXN>
F;22,218,222,228/Binding site: zinc, catalytic (Cys, His, His, His, His) (inhibited) #status F;120,143/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;218,222,228/Binding site: zinc, catalytic (His) (active) #status predicted
F;218/Active site: Glu #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P;100-469/Product: interstitial collagenase #status predicted <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             83.3%; Score 45; DB 1; Length 469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. 3.3;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           F;278-466/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    88.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 88.9
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ||||| |||||
PRCGVPDVA 98
                                                     |||| ||||
89 PRCGVPDVA 97
1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1-469 <TEM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Accession: S14654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
8
                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
```

Section of

9

;Cross-references: UNIPARC:UP1000016C6D5; EMBL:X54724; NID:g2016; PIDN:CAA38526.1; PID:

(inhibited) #status [

ö

Gaps

ö

ö

Gaps

ö

```
A; Contents: annotation; X-ray crystallography, 2.5 angstroms, residues 100-466
C; Comment: Procollagenase can be activated without removal of the activation peptide. Stition peptide by other proteinases.
C; Comment: Procollagenase is found in glycosylated and unglycosylated forms, both of whice; Function:
                                                                                                                                                                                                                                                                                                                                                                                                                    A; Description: hydrolyzes collagens, in particular types I, II, III, and X, serpins, and A; Description: hydrolyzes type X collagen, serpins, and alpha-macroglobulins C; Superfamily: interstitial collagense; hemopexin repeat homology; matrix metalloproteir C; Keywords: calcium; extracellular matrix; fibroblast; glycoprotein; hydrolase; metalloproteir E; 1-19/Domain: signal sequence #status predicted <SIG> F; 20-469/Product: procollagenase #status predicted <PRO> F; 20-99/Domain: activation peptide #status experimental <ACT> F; 60-261/Domain: activation peptide #status experimental <ACT> F; 100-469/Product: interstitial collagenase #status predicted <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Accession: JC5743

R;Bartlett, J.D.; Simmer, J.P.; Kue, J.; Margolis, H.C.; Moreno, E.C.

R;Bartlett, J.D.; Simmer, J.P.; Kue, J.; Margolis, H.C.; Moreno, E.C.

A;Title: Molecular cloning and mRNA tissue distribution of a novel matrix metalloproteins

A;Reference number: JC5743; MUID:97149288; PMID:8996096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C. Comment: This enzyme plays a role in enamel biomineralization and development.
C. Superfamily: interstitial collagenase; hemopexin repeat homology; matrix metalloproteir C. Keywords: hydrolase; metalloproteinase; zinc
F:1-22/Domain: signal sequence #status predicted <SIG>
F:23-483/Product: matrix metalloproteinase #status predicted <MAT>
F:68-271/pomain: matrix metalloproteinase homology <MMP>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A,Molecule type: mRNA
A,Residues: 1-483 ABRA-
A,Cross-references: UNIPROT: P79287; UNIFARC:UPI000012F257; GB:U54825; NID:g1800212; PIDN:
A,Experimental source: enamel organ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          F;290-483/Domain: hemopexin repeat homology <PXN>
F;290-483/Domain: hemopexin repeat homology <PXN>
F;100,226,230,236/Binding site: zinc, catalytic (Gys, His, His, His, His) (inhibited) #status F;226,230,236/Binding site: zinc, catalytic (His) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       F;272-466/Domain: hemopexin repeat homology <PXN>
F;92,218,222,228/Binding site: zinc, catalytic (Cys, His, His, His) (inhibited)
F;92,218,222,228/Binding site: zinc, catalytic (His) (active) #status predicted
F;218,222,228/Binding site: zinc, catalytic (His) (active) #status experimental
F;219/Active site: Glu #status predicted
F;219-466/Disulfide bonds: #status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             matrix metalloproteinase (EC 3.4.24.-) precursor - pig
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 09-Dec-1997 #sequence_revision 23-Jan-1998 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         probable matrix metalloproteinase (BC 3.4.24.-) - Caenorhabditis elegans C;Species: Caenorhabditis elegans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    83.3%; Score 45; DB 1; Length 469;
88.9%; Pred. No. 3.3;
iive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  83.3%; Score 45; DB 2; Length 483;
88.9%; Pred. No. 3.4;
iive 0; Mismatches 1; Indels
R;Li, J.; Brick, P.; Blow, D.M.
submitted to the Brookhaven Protein Data Bank, April 1995
A;Reference number: A65568; PDB:1FBL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  F;227/Active site: Glu #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity 88.9%;
tes 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ||||| ||||
PRCGVPDVA 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRCGVPDVA 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
les 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MCDGII

MIGRESTITIAL collagenase (EC 3.4.24.7) precursor [validated] - pig

Ninterstitial collagenase (EC 3.4.24.7) precursor [validated] - pig

Ninterstitial collagenase (EC 3.4.24.7) precursor [validated] - pig

C. Species: Sus scrofa domestica (domestic pig)

C. Date: 30-Sep-1992 #sequence_revision 30-Sep-1992 #text_change 09-Jul-2004

C. Accession: 815986; 813597

R. Michards, C. D.; Rafferty, J.A.; Reynolds, J.J.; Saklatvala, J.

R. Michards, C. D.; Rafferty, J.A.; Reynolds, J.J.; Saklatvala, J.

A. Title: Porcine collagenase from synovial fibroblasts: CDNA sequence and modulation of A; Recession: 815986; MUID: 91333421; PMID:1651440

A. Michards compared with conceptual translation

A. Michards in not compared with conceptual translation

A. Michards in the sequence, including the amino end of the proenzyme, was confirmed by A; Cross-references uniPROT: P21692; UNIPARC:UPI000012F23A

A. Mode: part of the sequence, including the amino end of the proenzyme, was confirmed by R; Clarke, N.J.; O'Hare, M.C.; Cawston, T.E.; Harper, G.P.

Nucleic Acids Res. 18, 6703, 1990

A. Title: Nucleotide sequence of a cDNA for porcine type I collagenase, obtained by PCR.

A; Recember number: 813597; MUID: 91067477; PMID: 2174547

A; Residues: 25-469 < CLA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C; Comment: Procollagenase is found in glycosylated and unglycosylated forms, both of which can be considered to the constant of the constant 
                                                                                                                                            Rispingman, E.B.; Angleton, E.L.; Birkedal-Hansen, H.; Van Wart, H.E.

Proc. Natl. Acad. Sci. U.S.A. 87, 364-368, 1990
Aritle: Multiple modes of activation of latent hibraplast collagenase: evidence f A; Reference number: A44517; MUID:90115877; PMID:215297
A; Contents: annotation; disulfide bond; activation mechanism
R; Salowe, S. P.; Marcy, A.I.; Cuca, G.C.; Smith, C.K.; Kopka, I.E.; Hagmann, W.K.; Hermes Biochemistry 31, 4535-4540, 1992
A; Title: Characterization of zinc-binding sites in human stromelysin-1: stoichiometry of A; Reference number: A43031; MUID:92256384; PMID:1581308
A; Contents: annotation; zinc ligand in proenzyme both active and proenzyme forms of the catal C; Comment: Procollagenase can be activated without removal of the activation peptide. St
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       F;272-466/Domain: hemopexin repeat homology <PXN>
F;272-466/Domain: hemopexin repeat homology <PXN>
F;292.2818.222,228/Blanding site: zinc, catalytic (Cys, His, His, His) (inhibited) #status
F;218,222,228/Blanding site: carbohydrate (Asn) (covalent) #status predicted
F;218,222,228/Blanding site: zinc, catalytic (His) (active) #status predicted
F;218/Active site: Glu #status predicted
F;278-466/Disulfide bonds: #status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tion peptide by other proteinases.
C;Comment: Procollagenase is found in glycosylated and unglycosylated forms, both of whi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             83.3%; Score 45; DB 1; Length 469;
88.9%; Pred. No. 3.3;
iive 0; Mismatches 1; Indels
A;Molecule type: protein
A;Residues: 20-108 <SU2>
A;Cross-references: UNIPARC:UP10000172CC5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity 88.9
ses 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             90 PRCGVPDVA 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
```

셤 8

```
C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
C;Accession: T3725
R;Wada, K. Sato, H.; Kinoh, H.; Kajita, M.; Yamamoto, H.; Seiki, M.
Gene 211, 57-62, 1998
A;Title: Cloning of three Gaenorhabditis elegans genes potentially encoding novel matrix
A;Reference number: Z21645; MUID:98241501; PMID:9573338
A;Reference number: T3725
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Residus: preliminary; translated from GB/EMBL/DDBJ
A;Residus: 1-521 «WAD>
A;Cross-references: UNIPROT:061266; UNIPARC:UP100000824F5; EMBL:AB007817; NID:93152405;
A;Experimental source: strain N2
C;Superiaminal collagenase; hemopexin repeat homology; matrix metalloprotei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 83.3%; Score 45; DB 2; Length 521; Best Local Similarity 87.5%; Pred. No. 3.7; Matches 7; Conservative 1; Mismatches 0; Indels
```

Gaps ö

Search completed: February 21, 2006, 08:01:07 Job time : 13.9737 secs

||||:||| 78 PRCGHPDV 85 1 PRCGNPDV 8

8 g

This Page Blank (Usoto)

٨

```
GenCore version 5.1.7
(c) 1993 - 2006 Biocceleration Ltd.
                     Copyright
```

OM protein - protein search, using sw model

February 21, 2006, 18:31:04 ; Search time 90.2368 Seconds Run on:

(without alignments) 70.368 Million cell updates/sec

US-10-601-059-12

1 PRCGNPDVA 9 Perfect score: Sequence: BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

2166443 seqs, 705528306 residues Searched:

17 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 100* Maximum Match 100* Listing first 45 summaries

UniProt 05.80:* Database

1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		TOTAL TOTAL	Quit9 canis famil	Q4klf6 xenopus lae	Q7sya5 xenopus lae	Q6gqil xenopus lae		Q6u7g9 meleagris g	Q5fvw8 xenopus tro	Q8uuz3 xenopus lae	P08253 homo sapien	Q5iy21 tupaia glis		Q9gle5 bos taurus	P33434 mus musculu	P50757 oryctolagus	P33436 rattus norv	Q6gmm9 rattus norv	Q90611 gallus gall
	£		Q9N1T9_CANFA	Q4KLF6_XENLA	Q7SYA5 XENLA	Q6GQ11_XENLA	Q9N1P6 CANFA	Q6U7G9 MELGA	Q5FVW8 XENTR	Q8UUZ3_XENLA	MMP2 HUMAN	Q5IYZ1_TUPGB	Q95JA4 PIG	Q9GLES_BOVIN	MMP2 MOUSE	MMP2 RABIT	MMP2 RAT	Q6GMM9 RAT	MMP2_CHICK
	2	9 !	7	~	~	~	~	~	~	~	٦	7	~	~	-			~	ч
	Query	113611211 	112	223	559	595	632	654	655	959	099	99	199	199	662	662	662	662	663
ф	Query	ייום כל זו	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	0	1000	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
	Result		1	7	e	4	S	9	7	8	6	10	11	12	13	14	15	16	11

ALIGNMENTS

	;			sequence update)	update)		
	Ž			'n	8		
	112 AA.			ence	tati		
	PRT;		Created)	Last sequ	Last annotation update	(Fragment)	
	ξ¥;		. 15,	. 15,	. 26,	3e-2	
	OBNIT9_CANFA PRELIMINARY;		(TrEMBLrel.	TrEMBLrel.	(TrEMBLrel.	Matrix metalloproteinase-2	
Y.	CANFA		01-OCT-2000 (01-OCT-2000 (01-MAR-2004 (c metall	MP-2;
RESULT 1 SONITS CANFA	Q9N1TS	Q9N1T9,	01-003	01-00	01-MAF	Matrix	Name≃MMP-2
REST Q9N1	Ω	ğ	Į.	υŢ	Ŋ	DE	N U

ö Gaps Canis familiaris (Dog). Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Butheria, Laurasiatheria, Carnivora, Fissipedia, Canidae, ö Ensembl, ENSCARGO000009421; Canis familiaris.

GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.

GO; GO:0004222; F:metalloendopeptidase activity; IEA.

GO; GO:000508; P:proteolysis and peptidolysis; IEA.

InterPro; IPR000794; Ketoacyl synth.

InterPro; IPR001818; Pept_MIOA_MI2B. 100.0%; Score 54; DB 2; Length 112; 100.0%; Pred. No. 0.076; tive 0; Mismatches 0; Indels Jahic H., Kitchell B.E., Paria B.C.;
Submitted (APR-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AR147750; ARF67001.1; -; mRNA.
HSSP; P08253; JAXD.
MEROPS; MIO.003; -. 112 AA; 12110 MW; 7FD7259CAACD9617 CRC64; Promi Project Deptidase MIO N; 1. PROSITE; PSO0606; B KETOACYL SYNTHASE; UNKNOWN 1. PROSITE; PSO0546; CYSTEINE SWITCH; 1. Query Match Best Local Similarity 100.00 Lhon 9; Conservative 112 NUCLEOTIDE SEQUENCE rissue=Fibrosarcoma, NCBI_TaxID=9615; NON TER SEQUENCE

1 PRCGNPDVA 9 ò

94 PRCGNPDVA 102 a

13-SEP-2005 (TrEMBLrel. 31, Created)
13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
Hypothetical protein.
Kanopus laevis (African clawed frog).
Eukaryota, Metazoa, Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Annra; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus; Xenopus. 223 AA. PRT; Q4KLF6 XENLA PRELIMINARY; NCBI_TaxID=8355; 10 04KLF6_XX
AC 04KLF6_XX
AC 04KLF6_XX
DT 13-SEP-20
DT 13

TISSUE=Whole; MEDLINE=22341132; PubMed=12454917; DOI=10.1002/dvdy.10174; Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W., Richardson P.; "Genetic and genomic tools for Xenopus research: The NIH Xenopus NUCLEOTIDE SEQUENCE.

Dev. Dyn. 225:384-391(2002). initiative.";

NUCLEOTIDE SEQUENCE.

MEDINE-238825; PubMed=12477932; DOI=10.1073/pnas.242603899;
X MEDINE-238825; PubMed=12477932; DOI=10.1073/pnas.242603899;
A Straubberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
A Strauberg R.L., Marusina F.S., Wagner L., Wang J., Heibh F.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Bitchenko L., Marusina K., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
A Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
Brownstein M.J., Uddin T.B., Toshiyuki S., Carninci P., Prange C.,
A Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gubaratue P.H.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
A Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

us-10-601-059-12.rup

```
NUCLEOTIDE SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Straubberg R.L., Feingold B.A., Grouse L.H., Derge J.G.,
Klauener R.D., Collins F.S., Wagner L., Shemmen C.M., Schuler G.D.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heishe F.,
Stapleron M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.B.,
Brownstein M.J., Usdin T.B., Toohiyuki S., Carninci P., Prange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Whiting M., Madan A., Young A.C., Mackenberko Y., Bouffard G.G.,
Blakesley R.W., Touchman J.W., Green B.D., Dickson M.C.,
Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.B.,
Schnerch A., Schein J.B., Jones S.J.M., Marra M.A.;
"Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                       ö
Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smallus D.E., Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.; "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences."
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Xeñopús laevis (African clawed frog).
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Amphibia, Batrachia, Anura, Mesobatrachia, Pipoidea, Pipidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE=Whole;
BEDILNES-22341132; PubMed=12454917; DOI=10.1002/dvdy.10174;
Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W.,
Richardson P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Genetic and genomic tools for Xenopus research: The NIH Xenopus initiative.",
                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
                                                                                                                                                                                                                           100.0%; Score 54; DB 2; Length 223; 100.0%; Pred. No. 0.15;
                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                             Klein S., Gerhard D.S.;
Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
EMBL; BC099241; AAH99241.1; -; mRNA.
                                                                                                                                                                                      Hypothetical protein.
SEQUENCE 223 AA; 25889 MW; AB815A358ECD68F1 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                               01-0CT-2003 (TrEMBLrel. 25, Created)
01-0CT-2003 (TrEMBLrel. 25, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002)
                                                                                                                                                                                                                                                                                                                                                                         559 AA
                                                                                                                                                                                                                                    100.0%; Pred. ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Xenopodinae; Xenopus; Xenopus
NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Dev. Dyn. 225:384-391(2002).
[3]
                                                                                                                                                                                                                                                                                                                                                                         Q7SYAS_XENLA PRELIMINARY;
                                                                                                                                                                                                                                       Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                               PRCGNPDVA 104
                                                                                                                                                                                                                                                                               1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUCLEOTIDE SEQUENCE.
                                                                                                                    NUCLEOTIDE SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                         Mmp2-prov protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDNA
                                                                                                                                   TISSUE=Whole;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE=Whole;
                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                              ઠે
```

```
*** ALCOURTE STATE STATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Amphibia, Batrachia, Anura, Mesobatrachia, Pipoidea, Pipidae,
                                                                                                                                                                                                                                                                               GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
R GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
GO; GO:0005508; F:metalloendopeptidase activity; IEA.
R GO; GO:0005608; F:metalloendopeptidase activity; IEA.
R InterPro; IPR000555; F:metalloendopeptidase.
R InterPro; IPR00055; F:metalloendopeptidase.
R InterPro; IPR001818; Peptidase.
R Pfam; PF00040; F:metalloendopeptidase.
R Pfam; PF00413; Peptidase.
R Pfam; PF00413; Peptidase.
R Pfam; PF00313; Peptidase.
R Pfam; PF00313; Peptidase.
R Pfam; PF0338; MATRIXIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 54; DB 2; Length 559; 100.0%; Pred. No. 0.39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
TISSUE=Whole;
Klein S., Strausberg R.;
Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases.
EMBL; BCO54947; AAH54947.1; -; mRNA.
HSSP; P08253; 1HOV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Prodom; PD000995; FN Type_II; 3.
SMART; SM00059; FN2; 3.
SMART; SM00020; HX; 2.
SMART; SM001235; ZnMC; 1.
PROSITE; PS00546; CYSTEINE SWITCH; 1.
PROSITE; PS00024; HEMOPEXIN; 2; 3.
PROSITE; PS00042; HEMOPEXIN; 2; 3.
PROSITE; PS00142; ZINC PROTEARE; UNKNOWN 1.
SEQUENCE 559 AA; 63084 MW; F27EDBACE59E4B52 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OGGQ11;
05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            595 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Name=mmp2-prov;
Kenopus laevis (African clawed frog).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Xenopodinae; Xenopus; Xenopus.
NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 100.0%;
Matches 9; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QGGQI1 XENLA PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96 PRCGNPDVA 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE=Spleen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
```

```
EMBL; AF177217; AAF67517.1; -; mRNA.
HSSP; P08253; 1GXD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      72 PRCGNPDVA 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gelatinase A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.; "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.""

Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Name=MMP-2;
Canis familiaris (Dog).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Laurasiatheria; Carnivora; Fissipedia; Canidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE-Fibrosarcoma.
Jahic H., Paria B., Balkin R., Baxendale V., Fang Y., Kitchell B.;
Submitted (AUG-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                          TISSUE-Spleen;

BEDLINE-22341132; PubMed=12454917; DOI=10.1002/dvdy.10174;

Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W.,

Richardson P.;

"Genetic and genomic tools for Xenopus research: The NIH Xenopus initiative...;
                                                                                                                                                                                                                                                                                                                                                        A CLEADLINE SUPCEACHER.

A Klein S., Straubberg R.;

Klein S., Straubberg R.;

Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.

EMBL; BC072252, AAH72762.1; -; mENA.

GO; GO:0004222; P:metalloar matrix (sensu Metazoa); IEA.

GO; GO:0004229; P:metalloar matrix (sensu Metazoa); IEA.

GO; GO:0006269; P:metalloar and peptidolysis; IEA.

InterPro; IPR000585; Hemcpexin.

R InterPro; IPR0006085; Hemcpexin.

R InterPro; IPR0006025; Peptidase M.

InterPro; IPR000401; Fept_MIOA_MI2B.

R Pfam; PF00040; fn2; 3.

R Pfam; PF00040; Fn2; 3.

R Pfam; PF00041; Peptidase MID; 1.

R PRINTS; PR00131; FNTYPEII.

R PRINTS; PR00131; FNTYPEII.

R PRINTS; PR001995; FN2; 3.

R SMART; SM001059; FN2; 3.

R SMART; SM001059; FN2; 3.

R SMART; SM00105; FN3; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'Match 100.0%; Score 54; DB 2; Length 595; Local Similarity 100.0%; Pred. No. 0.42; les 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 595 AA; 67335 MW; 688556DF6039FF83 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-077-2000 (TrEMBLrel. 15, Created)
01-077-2000 (TrEMBLrel. 15, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Matrix mecalloproteinase-2 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SMART; SM00235; ZnMc; 1.

PROSITE; PS00546; CYSTEINE SWITCH; 1.

PROSITE; PS00024; HEMOPEXIN; 1.

PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN_1.

PROSITE; PS0142; ZINC_PROTEASE; UNKNOWN_1.

SOON TERMS 595 A1, 67335 MM; 688556DF6039F
                                                                                                                                                                                                                                                                                               Dev. Dyn. 225:384-391 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q9N1P6_CANFA PRELIMINARY;
Q9N1P6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96 PRCGNPDVA 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 PRCGNPDVA 9
                                                                                                                                   NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                          NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=9615;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CANFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Canis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 5
CON 100
ON 100
ON 100
ON 100
ON 100
ON 100
ON MARY
ON MARY
ON MARY
ON MARY
ON MARY
ON MARY
(1)
REP NUCI
    RATARET REPARENCE SERVICE SERV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
```

A. 18. 18. 18.

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Meleagris gallopavo (Common turkey).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Archosauria, Aves, Neognathae, Galliformes, Phasianidae, Meleagris.
REMEAUS; MILL:003; -.

REMEAUS; MILL:003; -.

R GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.

GO; GO:000422; F:metalloendopeptidase activity; IEA.

R GO; GO:0006508; P:metalloendopeptidase activity; IEA.

R InterPro; IPR000562; F:metalloendopeptidase activity; IEA.

R InterPro; IPR000585; Hemopexin.

R InterPro; IPR000585; Hemopexin.

R InterPro; IPR001818; Pept, M10A, M12B.

R InterPro; IPR001818; Pept, M10A, M12B.

R Ffam; PF000405; Hemopexin; 4.

R Pfam; PF000405; Hemopexin; 4.

R Pfam; PF000405; Hemopexin; 4.

R Pfam; PF000405; Hemopexin; 4.

R PRINTS; PR00113; Peptidase_M10, 1.

R PRINTS; PR00113; FPTPEII.

R PRINTS; PR00113; FNTPEII.

R PRINTS; PR00120; FNZ; 3.

R SMART; SM00120; HX; 4.

R SMART; SM00120; HX; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GO, GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
GO; GO:0004222; F:metalloendopeptidase activity; IEA.
GO; GO:0006508; F:proteolysis and peptidolysis; IEA.
InterPro; IPR000562; FN Type II.
InterPro; IPR000562; FN Type II.
InterPro; IPR000585; Hemopexin.
InterPro; IPR00188; Peptidase M.
InterPro; IPR001818; Pept M.OA M.12B.
InterPro; IPR001818; Pept M.OA M.12B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 54; DB 2; Length 632; 100.0%; Pred. No. 0.45; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Monsonego Ornan E., Tong A.;
Submitted (AUG-2003) to the EMBL/GenBank/DDBJ databases.
EMBL; AY376899; AAQ98971.1; -; mRNA.
HSSP; P08254; 1B3D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE 632 AA; 70991 MW; D8AE895497E129F3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QGUTG9 MELGA PRELIMINARY; PRT; 654 AA.
QGUTG9;
QGUTG9;
GSJUL-2004 (TrEMBLrel. 27, Created)
O5-JUL-2004 (TrEMBLrel. 27, Last sequence update)
O5-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE; PS00546; CYSTEINE SWITCH; 1.
PROSITE; PS00023; FIBRONECTIN 2; 3.
PROSITE; PS00024; HEMOPEXIN; 1.
PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00413; Peptidase_M10; 1. Pfam; PF0393; Peptidase_M10_N; 1. PRINTS; PR00013; FWTYPEII. PRINTS; PR00138; MATRIXIN. ProDom; PD000995; FN Type_II; 3. SWART; SM0015; FN2; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pfam; PF00040; fn2; 3. _ _ Pfam; PF00045; Hemopexin; 3.
```

us-10-601-059-12.rup

```
resorption.";
                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q8UUZ3 XENLA
                                                                                                                                                                                                                                                                                                           Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 8
   8 4 4 4 4 4 4 4 4 4 4 4 4 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Xenopus tropicalis (Western clawed frog) (Gilurana tropicalis).
Bukaryota; Metazota, Chordata, Craniata; Vertebrata, Buteleosfomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus; Silurana.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUCLEOTIDE SEQUENCE.

TISSUE-Whole body;

A Klein S., Gerhard D.S.;

Submitted (PER-2005) to the EMBL/GenBank/DDBJ databases.

EMBL; BC089734; AAH89734.1; -; mRNA.

R GO; GO:0005279; C:extracellular matrix (sensu Metazoa); IEA.

R GO; GO:0006229; F:metalloendopeptidase activity; IEA.

R GO; GO:0006229; F:metalloendopeptidase activity; IEA.

R GO; GO:0006209; P:proteclysis and peptidolysis; IEA.

IN ECPPC; IPR000585; Hemopexin.

IN InterPro; IPR0001818; Pept M.2B.

IN InterPro; IPR006025; Pept M.2 B.

INTERPRO; IPR006026; Peptidase—N.

INTERPRO; IPR006026; Peptidase—N.
                                                                                                                                                                        ö
                                                                                                                             100.0%; Score 54; DB 2; Length 654; 100.0%; Pred. No. 0.46; ive 0; Mismatches 0; Indels
             PROSITE; PS00546; CYSTEINE SWITCH; 1.
PROSITE; PS00023; FIBRONECTIN 2; 3.
PROSITE; PS00024; HEMOPEXIN; 1.
PROSITE; PS00142; ZINC PROTEASE; UNKNOWN 1.
SEQUENCE 654 AA; 713956 MW; P9B0755F76B6F8DD CRC64;
                                                                                                                                                                                                                                                                                                                                                                                 10-MAY-2005 (TrEMBLrel. 30, Created)
10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                 655 AA.
                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                         QSFVW8_XENTR PRELIMINARY;
QSFVW8;
                                                                                                                                                  Local Similarity 100.
SM00235; ZnMc; 1.
                                                                                                                                                                                                                              1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                            MGC108375 protein.
                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                             XENTR
                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                   RESOULT 7

LOS WAS XE

RAPA HA

RAPA
ò
                                                                                                                                                                                                                                                셤
```

```
Gaps
                                                                                                                             ENDOM; PRO00995; FN TYPE_II; 3.
SWART; SM00059; FN2; 3.
SWART; SM00120; HN2; 4.
SWART; SM00120; HN2; 4.
PROSITE; PS00024; FN2_II; 3.
PROSITE; PS00024; HEWÖPEXIN; 1.
PROSITE; PS000124; HEWÖPEXIN; 1.
PROSITE; PS00124; HEWÖPEXIN; 1.
SROSITE; PS00124; HEWÖPEXIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-21888509; PubMed-11891989; DOI=10.1002/dvdy.10069; Jung J.C., Leco K.J., Edwards D.R., Fini M.E.; "Matrix metalloproteinases mediate the dismantling of mesenchymal structures in the tadpole tail during thyroid hormone-induced tail
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAR-2002 (TrEMBLrel. 20, Created)
1-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Matrix metalloproteinase.
Matrix met
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 54; DB 2; Length 655; 100.0%; Pred. No. 0.46; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Leco K., Jung J.-C., Fini M., Edwards D.R.;
Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AY037943; AAL01591.1; -; mRNA.
HSSP; P08253; IQIB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      656 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SMART; SM00059; FN2; 3.

SMART; SM01120; HX; 4.

SMART; SM00215; ZnVc; 1.

PROSITE; PS000546; CYSTEINE SWITCH; 1.

PROSITE; PS00023; FIBROWECTIN 2; 3.

PROSITE; PS00024; HEMOPEXIN; 2.
Pfam; PF03933; Peptidase_M10_N; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRINTS; PRO0013; FNTYPEII. —
PRINTS; PR00138; MATRIXIN.
PRODOM; PD000995; FN Type_II; 3.
SMART; SM00059; FN2; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Xenopodinae; Xenopus; Xenopus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Dev. Dyn. 223:402-413(2002).
                                         PRINTS; PRO0013; FNTYPEII
PRINTS; PR00138; MATRIXIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QBUUZ3_XENLA PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity 100.
1es 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                95 PRCGNPDVA 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=8355;
```

```
Bode W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      removed.
  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUCLEOTIDE SEQUENCE [GENOMIC DNA], AND VARIANTS VAL-447 AND LEU-621. Livingston R.J., Rieder M.J., Chung M. W., Ritchie T.K., Olson A.N., Nguyen C.P., Nguyen D.A., Poel C.L., Chambers S.W., Schackwitz W.S., Sherwood J.K., Sherwood A.M., Leithauser B.J., Nickerson D.A., Sherwood J.K., Sherwood A.M., Leithauser B.J., Nickerson D.A.; INIEHS-SNPS, environmental genome project, NIEHS ES15478, Department of Genome Sciences, Seattle, WA (URL: http://egp.gs.washington.edu)."; Submitted (AUG-2004) to the EMBL/GenBank/DbBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899; Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., Diatchenko L., Maruslina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H., Richards S., Woxley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bukaryote; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Buarchontoglires; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUCLEOTIDE SEQUENCE.
MEDLINE=91236162; PubMed=1851724;
Collier I.E., Bruns G.A.P., Goldberg G.I., Gerhard D.S.;
"On the structure and chromosome location of the 72- and 92-kDa human type IV collagenase genes.";
Genomics 9:429-434(1991).
                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUCLEOTIDE SEQUENCE OF 19-660, AND PARTIAL PROTEIN SEQUENCE.
MEDLINE=88198218; PubMed=2834383;
COllier I.B., Wilhelm S.M., Eisen A.Z., Marmer B.L., Grant G.A.,
Seltzer J.L., Kronberger A., He C., Bauer B.A., Goldberg G.I.;
"H-ras oncogene-transformed human bronchial epithelial cells (TBE-1)
secrete a single metalloprotease capable of degrading basement
                                                                                                                                                                                                                                                                                                                                                              (Rel. 08, Created)
(Rel. 17, Last sequence update)
(Rel. 48, Last annotation update)
IV collagenase precursor (EC 3.4.24.24) (72 kDa
(Matrix metalloproteinase-2) (MMP-2) (Gelatinase A)
                                                                                                                ö
                                                                                                              0; Indels
                                                                   Length
                   74272 MW; 50C28A99C427F51D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=90293047; PubMed=2162811;
Huhtala P., Chow L.T., Tryggvason K.;
"Structure of the human type IV collagenase gene.";
J. Biol. Chem. 265:11077-11082(1990).
                                                                100.0%; Score 54; DB 2; 100.0%; Pred. No. 0.46;
                                                                                                                                                                                                                                                                                                                        660 AA
                                                                                                              Mismatches
PROTEASE; UNKNOWN 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 membrane collagen.";
J. Biol. Chem. 263:6579-6587(1988).
                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                              ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Name=MMP2; Synonyms=CLG4A;
                                                            Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                     STANDARD;
PROSITE; PS00142; ZINC
                                                                                                                                                                                 |||||||||||||||
PRCGNPDVA 104
                                                                                                                                                         1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUCLEOTIDE SEQUENCE.
                   656 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                            13-SEP-2005
72 kDa type 1
gelatinase)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                   01-AUG-1988
                                                                                                                                                                                                                                                                                                                                                                                             01-FEB-1991
                                                                                                                                                                                                                                                                                                                     MMP2 HUMAN
                     SEQUENCE
                                                                                                                                                                                                                                                                     RESULT 9
MMP2 HUMAN
AC PMP2 HUMAN
AC PMP2 HUMAN
DT 01-8EB
DT 13-8EB
DT 13-8E
                                                                                                                                                                                                g
                                                                                                                                                         8
```

The second

```
This Swiss-Prot entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on ituse as long as its content is in no way modified and this statement is no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A (WMP2): structural implications for its function.";
FEBS Lett. 378:126-130(1996).
-!- FUNCTION: In addition to gelatin and collagens, it cleaves KiSS1
at a Gly-|-Leu bond.
-!- CARALYTIC ACTIVITY: Cleaves of gelatin type I and collagen types
IV, V, VII, X. Cleaves the collagen-like sequence Pro-Gln-Gly-|-
Ile-Ala-Gly-Gln.
                                                                                                                                                                                                                                                                human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -1- SUBUNIT: Ligand for integrin alpha-V/beta-3.
-1- TISSUE SPECIFICITY: Produced by normal skin fibroblasts.
-1- PTM: The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              collagenase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     [8]
PROCESSING OF KISSI.
MEDLINE=22761370; PubMed=12879005; DOI=10.1038/sj.onc.1206542;
Takino T., Koshikawa N., Miyamori H., Tanaka M., Sasaki T., Okada Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Completion of the primary structure of the human type IV collagenar preproenzyme and assignment of the gene (CLG4) to the q21 region of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         X-RAY CRYSTALLOGRAPHY (2.6 ANGSTROMS) OF 458-660.
MEDLINE=96140723; PubMed=8549817; DOI=10.1016/0014-5793(95)01435-7;
Gohlke U., Gomis-Rueth F.-X., Crabbe T., Murphy G., Docherty A.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              G.I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PubMed=11179305; DOI=10.1128/IAI.69.3.1402-1408.2001;
Gusman H., Travis J., Helmerhorst B.J., Potempa J., Troxler R.F.,
Oppenheim F.G.;
Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J.M., Marra M.A., "Generation and initial analysis of more than 15,000 full-length.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -!- COFACTOR: Binds 4 calcium ions per subunit.
-!- COFACTOR: Binds 2 zinc ions per subunit.
-!- ENZYME REGULATION: Inhibited by histatin-3 1/24 (histatin-5)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Salivary histatin 5 is an inhibitor of both host and bacterial enzymes implicated in periodontal disease."; Infect. Immun. 69:1402-1408(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=96069777; PubMed=7583664;
Libson A.M., Gittis A.G., Collier I.E., Marmer B.L., Goldberg
Lattman E.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Crystal structure of the haemopexin-like C-terminal domain gelatinase A.";
                                                                                                                                                                                                                                                                                                                                                                                                                         NUCLEOTIDE SEQUENCE OF 1-51.
MEDLINE-90228972; PubMed=2158484;
Huhtala P., Eddy R.L., Fan Y.S., Byers M.G., Shows T.B.,
Tryggvason K.;
"Completion of the primary structure of the human type IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -i- SIMILARITY: Belongs to the peptidase M10A family.
-i- SIMILARITY: Contains 3 fibronectin type-II domains.
-i- SIMILARITY: Contains 1 hemopexin-like domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Cleavage of metastasis suppressor gene product KiSS-1 protein/metastin by matrix metalloproteinases."; Oncogene 22:4617-4626 [2003].
                                                                                                                                                                                                                                                                                                                                               Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            X-RAY CRYSTALLOGRAPHY (2.15 ANGSTROMS) OF 443-660.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Struct. Biol. 2:938-942(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; J03210; AAA35701.1; -; mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genomics 6:554-559(1990).
                                                                                                                                                                                                                                                                                                            mouse cDNA sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ENZYME REGULATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              сhromoвоше
```

```
PARTICLEOTINE SEQUENCE.

RA FUNDEGOTINE SEQUENCE.

RA FEDING M.S., Gentle A., McBrien N.A.;

Kenning M.S., Gentle A., McBrien N.A.;

Repression and cDNA sequence of matrix metalloproteinase-2 (MMP-2) in RT "Expression and CDNA sequence of matrix (sensu Metazoa).

RD Seq. 15:332-337(2004).

RD Seq. 15:332-337(2004).

RD Seq. 16:332-337(2004).

RD ROS GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.

ROS GO:000578; C:extracellular matrix (sensu Metazoa); IEA.

ROS GO:0006578; P: metalloendopeptidase activity; IEA.

RINTEFPO: IPR000652; Pept MIOA MIL2B.

RINTEFPO: IPR00045; Hemopexin.

R Ffam; PP00045; Hemopexin.

R Ffam; PP00045; Hemopexin.

R Ffam; PP00045; Hemopexin.

R Ffam; PP00045; Hemopexin.

R RNART; SM00029; RN TYPEII.

R RNOSITE; PS00024; HEMOPEXIN; 1.

R RNOSITE; RS00024; HEMOPEXIN; 1.

RNOSITE; RS00024; HEMOPEXIN; 1.

RNOSITE; RS00024; HEMOPEXIN; 1.

RNOSITE; RS00024; HEMOPEXIN; 1.

RNOSITE; RS00024; HEMOPEXIN; 1.
                                                                                                                                                                                                                                                                                                                                             10-MAY-2005 (TrEMBLrel. 30, Created)
10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
Matrix metalloproteinase 2.
Tupaia glis belangeri (Common tree shrew).
Bukaryota; Metazoa; Chodata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Euarchontoglires; Scandentia; Tupaia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Name-MMP-2;
Sus scrofa (Fig).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 54; DB 2; Length 660;
100.0%; Pred. No. 0.47;
ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT; 661 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   095JA4;
01-DBC-2001 (TrEMBLrel. 19,
01-DBC-2001 (TrEMBLrel. 19,
01-MAR-2004 (TrEMBLrel. 26,
Gelatinase A.
                                                                                                                                                                                RESULT 10
QSIX21 TUPGB
ID QSIX21_TUPGB PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 11
095JA4 PIG
ID Q95JA4_PIG PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100 PRCGNPDVA 108
                                            100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUCLEOTIDE SEQUENCE
1 PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=37347;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                COOCC 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R PRINTS; PRO0013; FEPTINGEN II.

R PRINTS; PR00013; FEPTINGEN II.

R PRO0013; FEPTINGEN II.

R PROD013; PRN2; II.

R PROD015; FN12; II.

R SMART; SM00150; HX; 4.

SMART; SM00120; HX; 4.

SMART; SM00120; HX; 4.

R PROSITE; PS00024; FN2_1; 3.

R PROSITE; PS00024; HEMOPEXIN; 1.

R PROSITE; PS00024; HEMOPEXIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 54; DB 1; Length 660; 100.0%; Pred. No. 0.47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Activation peptide.
72 kDa type IV collagenase.
Fibronectin type-II 1.
Fibronectin type-II 2.
Fibronectin type-II 3.
Hemopexin-like.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MIM; 120360; -. Gextracellular space; TAS. GO; GO:0005615; C:extracellular space; TAS. GO; GO:0004228; F:gelatinase A activity; TAS. GO; GO:0004229; F:gelatinase A activity; TAS. GO; GO:0005508; F:gelatinase A activity; TAS. InterPro; IPR000562; FW LYPe2 col. bd. InterPro; IPR000562; FW LYPe2 col. bd. InterPro; IPR000563; FW LYPe2 col. bd. InterPro; IPR000585; Fept MIOA MI2B. InterPro; IPR006025; Pept MIOA MI2B. InterPro; IPR006025; Pept MIOA MI2B. InterPro; IPR006025; Pept MIOA MI2B. Pfam; PF00045; Hemopexin; 4.
                                                    EMBL; MS5529; AAA52028.1; -; GERORIC_LONA.
EMBL; MS5582; AAA52028.1; JOINED; GERORIC_DNA.
EMBL; MS5582; AAA52028.1; JOINED; GERORIC_DNA.
EMBL; MS5583; AAA52028.1; JOINED; GERORIC_DNA.
EMBL; MS5584; AAA52028.1; JOINED; GERORIC_DNA.
EMBL; MS5584; AAA52028.1; JOINED; GERORIC_DNA.
EMBL; MS5587; AAA52028.1; JOINED; GERORIC_DNA.
EMBL; MS5589; AAA52028.1; JOINED; GERORIC_DNA.
EMBL; MS5589; AAA52028.1; JOINED; GERORIC_DNA.
EMBL; MS5599; AAA52028.1; JOINED; GERORIC_DNA.
EMBL; MS599; AAA52028.1; JOINED; GERORIC_DNA.
EMBROPS; MNR; A=115-216.
ENSGENDA!; MNR; A=213-2452.
ENSGENDA!; ENSGOO0000087245; HOMO SADIERS.
ENSGENDA!; ANASER AMARIE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Collagenase-like 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Potential.
                                Genomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF00413; Peptidase_M10; 1.
Pfam; PF03933; Peptidase_M10_N; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                    EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHAIN
```

ö

ö

Gaps

ö

0; Indels

0; Mismatches

Gaps

ö

OC REAL TRANSPORTED TO THE PROPERTY OF THE PRO

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
Muroidea; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=92218452; PubMed=1373140; Reponen P., Sahlberg C., Huhtala P., Hurskainen T., Thesleff I., Tryggvason K.; Tryggvason K.; "Molecular cloning of murine 72-kDa type IV collagenase and its expression during mouse development."; J. Biol. Chem. 267:7856-7862(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-FBE-1994 (Rel. 28, Created)
01-FBE-1994 (Rel. 28, Last sequence update)
13-SEP-2005 (Rel. 48, Last annotation update)
72 kDa type 1V collagenase precursor (BC 3.4.24.24) (72 kDa gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A)
                                                                                                                                                                                                                                                                                                                                       100.0%; Score 54; DB 2; Length 661; 100.0%; Pred. No. 0.47; tive 0; Mismatches 0; Indel8
                                                                                                                                                                                                                                                                                                     661 AA; 73776 MW; 90545F7645E5F84D CRC64;
                                             Prami, Provasi remopeani; 1.
Prami, Provasi remopeani; 1.
Prami, Provasi remopeani; 1.
Prami, Prossis; Propridase M10; 1.
PRINTS; PRO0131; FNYTYERI.
Probom; PD000995; FN_TYPEII; 3.
SMART; SM00029; FNZ, 3.
SMART; SM00023; FNZ, 4.
SMART; SM00023; FNZ, 1.
PROSITE; PS00024; PIRRONECTIN 2; 3.
PROSITE; PS00024; HEMOPEXIN; 1.
PROSITE; PS00024; HEMOPEXIN; 1.
PROSITE; PS00024; ZINC_PROPEASE; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       662 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                             Ouery Match
Best Local Similarity 100.0%;
                 Pfam; PF00040; fn2; 3. _ _ Pfam; PF00045; Hemopexin; 4.
                                                                                                                                                                                                                                                                                 Metalloprotease; Protease.
SEQUENCE 661 AA; 73776 N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and mouse cDNA sequences.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          101 PRCGNPDVA 109
                                                                                                                                                                                                                                                                                                                                                                                                                      1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Name=Mmp2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 13
MMP2_MOUSE
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Yan L., Zhang B., Tsang P., Fang J., Yu Y., Ingber D.E., Moses M.A.; Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases. EMBL; AF290428; AAG29169.1; -; mRNA. HSSP; P08253; IGXD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ol-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Matrix metalloprocease 2.
Bos taurus (Bovine).

Bukaryota, Merazoa, Chordata, Craniata, Vertebrata, Buteleostomi, Mammalia, Butheria, Laurasiatheria, Cetartiodactyla, Ruminantia, Pecora, Bovidae, Bovinae, Bos.
11 TaxID-9913;
                                                                     TISSUE=Tooth enamel organ;
MEDLINE=21480581; PubMed=11597028;
Caron C., Xue J., Sun X., Simmer J.P., Bartlett J.D.;
"Gelatinase A (MMP-2) in developing tooth tissues and amelogenin
                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 54; DB 2; Length 661; 100.0%; Pred. No. 0.47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QGGLES BOVIN PRELIMINARY;
QGGLES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       101 PRCGNPDVA 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 PRCGNPDVA 9
                                                   NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
nes 9; Conserv
               NCBI_TaxID=9823;
                                                                                                                                                hydrolysis.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
QQGLES BOV
UD GQGLES
AC QQGLES
DT 01-MA
DT 01-M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
```

셤

ω

```
NCBI_TaxID=9986;
                                                                                                                                                            204
206
208
209
201
211
407
407
413
                                                                                                                                                                                                                                                                                                                                                                           620
                                                                                                                                                                                                                                                                                                                523
                                                                                                                                                                                                                                                                                                                                              571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 14
MMP2_RABIT
ID _MMP2_RABIT
AC P50757;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Oryctolagus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Name=MMP2;
                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
              METAL
METAL
METAL
METAL
                                                                                                                                                                                                                       METAL
                                                                                                                                                                                                                                                     METAL
                                                                                                                                                                                                                                                                                  METAL
                                                                                                                                                                                                                                                                                                                                                                          METAL
                                                                                     METAL
                                                                                                                                   METAL
                                                                                                                                                               METAL
                                                                                                                                                                              METAL
METAL
METAL
                                                                                                                                                                                                                                                                                                                METAL
                                                                                                                                                                                                                                                                                                                                              METAL
                                                                                                       GTAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                       SITE
ò
                                                                DEFINITION OF A THREE TRANSES AND THE PROPERTY OF THE PROPERTY
                                                                                                                                                                                                                                                                                                                                                         This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Glycoprotein;
Repeat; Signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Activation peptide.
72 kDa type IV collagenase.
Fibronectin type-II 1.
Fibronectin type-II 2.
Fibronectin type-II 3.
Hemopexin-like.
Collagenase-like 1.
Collagenase-like 2.
By similarity.
Calcium I (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS00142; ZINC_PROTEASE; 1.
Calcium; Collagen degradation; Extracellular matrix;
Hydrolase; Metal-binding; Metalloprotease; Protease;
Zinc; Zymogen.
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MENCRS; MOLO 1003; ---
Ensembl; ENSMUSGO0000031740; Mus musculus.
MG1; MG1:97009; Mmg2.
GO; GO:0005615; C:extracellular space; TAS.
InterPro; IPR000562; FN type2_Col_bd.
InterPro; IPR001818; Pept MIDA.
InterPro; IPR006025; Pept MIDA.
InterPro; IPR006025; Pept MIDA.
InterPro; IPR006025; Pept MIDA.
InterPro; IPR006026; Pept MIDA.
InterPro; IPR0013; Peptidase_MID.
InterPro; PR0013; FNTTPEII.
INTERPROSINE; PR00120; FNY; 4.
SWART; SW00029; FNY; 4.
SWART; SW00023; FNY; 1.
PROSITE; PS00024; FNYZ; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Potential.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; M84324; AAA39338.1; -; mRNA.
EMBL; BC070430; AAH70430.1; -; mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
662
662
662
662
662
662
746
134
134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PIR; A42496; A42496.
HSSP; P08253; IRTG.
                          DEVELOPMENTAL STAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30
2228
2286
2286
3344
1110
1222
134
134
                                                           PubMed=2744464;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGION
ACT_SITE
METAL
                                                                                                                                                                                                                                                                                                                                                                                                                         removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REGION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHAIN
```

```
ACTION OF STRAIN-Japanese white; TISSUB-Articular joint;

XX MEDLINE-96283805; PubMed=8679695; DOI=10.1016/0167-4781(96)00050-4;

XX MEDLINE-96283805; PubMed=8679695; DOI=10.1016/0167-4781(96)00050-4;

XX Matsumoto S., Katoh M., Watanabe T., Masuho Y.;

XX Matsumoto S., Katoh M., Watanabe T., Masuho Y.;

XX Tabobit matrix metalloproteinase-2 and its broad the several tissues.

XX Tabobit matrix metalloproteinase-2 and its broad to correct the several 1307:137-139(1996).

XX Tabobys. Acta 1307:137-139(1996).

XX Cleaves the collagen-like sequence Pro-Gln-Gly-]-

XX Cleaves the collagen-like sequence Tro-Gln-Gly-]-

XX Cleaves the collagen-like sequence Tro-Gly-

XX Cleaves the collagen-like sequence Tro-Gly-

XX Cleaves the collagen-like sequence Tro-Gly-

XX Cleaves the collagen-like sequence 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Buarchontoglires; Glires; Lagomorpha; Leporidae;
                                                                                                                                                                                                                                                                                                                       similarity).

Calcium 2 (via carbonyl oxygen) (By similarity).

Calcium 2 (By similarity).

Zinc 1 (By similarity).

Calcium 3 (By similarity).

Calcium 3 (By similarity).

Calcium 3 (By similarity).

Zinc 2 (catalytic) (By similarity).
Calcium 2 (By similarity).
Zinc 1 (By similarity).
Zinc 1 (By similarity).
Calcium 3 (By similarity).
Calcium 3 (By similarity).
Calcium 3 (via carbonyl oxygen) (By
                                                                                                                                                                                                              similarity).
Zinc 1 (By similarity).
Calcium 2 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-linked (GlcNAc. . .) (Potential).
N-linked (GlcNAc. . .) (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       similarity).
Calcium 4 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      similarity).
Calcium 4 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-0CT-1996 (Rel. 34, Created)
01-0CT-1996 (Rel. 34, Last sequence update)
13-SEP-2005 (Rel. 48, Last annotation update)
72 kDa type IV collagenase precursor (EC 34.24.24) (72 kDa gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 54; DB 1; Length 662; 100.0%; Pred. No. 0.47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cysteine switch (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    By similarity.
C630A7DBDB272F02 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      662 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Calcium 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Oryctolagus cuniculus (Rabbit)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            74102 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                         193
                                                                                                                                                                                                                                                                                                                                                                                                                                                               204
206
208
209
211
211
407
413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUCLEOTIDE SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       662 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
nes 9; Conserv
```

```
σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                      HSSP, P08253; 1RTG.
MEROPS; MIO.003; -.
RGD; 621316.
                                       471 6
662 AA;
                                                                                                                                                                                                                              NUCLEOTIDE SEQUENCE
                                                                Local Similarity
nes 9; Conserv
                                                                                     PRCGNPDVA
                                                                                                                                                                                  Name=Mmp2;
                                CARBOHYD
DISULFID
SEQUENCE
                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                            removed.
                                                           Query Match
        METAL
                                                                  Best Loc
Matches
                    SITE
                                                                                                                      RESULT 15
                                                                                                                             MMP2_RAT
  SIZZZZZZ
                                                                                                셤
                                                                                                                                  ð
                         This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                       Calcium 2 (By similarity).

Zinc 1 (By similarity).

Calcium 3 (By similarity).

Calcium 1 (By similarity).

Calcium 3 (By similarity).

Zinc 2 (catalytic) (By similarity).

Calcium 4 (Via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Calcium 4 (via carbonyl oxygen) (By similarity).
Calcium 4 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                              (By
                                                                                                                                                                                                                                                                                                                 By similarity.
Calcium 1 (By similarity).
Calcium 2 (By similarity).
Zinc 1 (By similarity).
Zinc 1 (By similarity).
Calcium 3 (By similarity).
Calcium 3 (Via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                       Zinc 1 (By similarity).
Calcium 2 (via carbonyl oxygen)
                                                                                                                                                                                                                                                                                                                                                                                          Calcium 2 (via carbonyl oxygen)
                                                                                                                                                                                                                                                       Activation peptide.
72 kDa type IV collagenase.
Pibronectin type-II 1.
Pibronectin type-II 2.
Pibronectin type-II 3.
Hemopexin-like.
SIMILARITY: Belongs to the peptidase M10A family. SIMILARITY: Contains 3 fibronectin type-II domains. SIMILARITY: Contains 1 hemopexin-like domain.
                                                                                                                                                                                                                                                                                              Collagenase-like 1.
Collagen-binding.
Collagenase-like 2.
                                                                                                                                                                                                                                                                                                                                                                                                  similarity).
                                                                                                                                                                                                                                                                                                                                                                 similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   similarity)
                                                                                                                                                                                                                                                                                                                                                                                    similarity)
                                                                EMBL; D63579; BAA09796.1; -; mRNA
                                                                                                                                                                                                                                                  29
662
662
276
2276
221
221
221
467
467
467
1134
1138
1180
1185
                                                                                                                                                                                                                                                                                                                                                                      193
                                                                                                                                                                                                                                                                                                                                                                                                       204
206
208
209
201
211
403
407
413
                                                                                                                                                                                                                                                                                                                                                                                          202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     571
                                                                       PIR; S70365; S70365.
HSSP; P08253; 1QIB.
MEROPS; M10.003; -.
                                                                                                                                                                                                                                                        30
1110
2228
3446
4404
1110
1134
11480
11882
1186
                                                                                                                                                                                                                                                                                                                                                                     193
                                                                                                                                                                                                                                                                                                                                                                                          202
                                                                                                                                                                                                                                                                                                                                                                                                       204
206
208
208
211
211
403
407
413
                                                                                                                                                                                                                                            Zinc; Zymogen
                                                                                                                                                                                                                                                                                       DOMAIN
REGION
REGION
REGION
ACT SITE
METAL
                                                    removed
                                                                                                                                                                                                                                                SIGNAL
PROPEP
CHAIN
                                                                                                                                                                                                                                                                    DOMAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                               METAL
METAL
METAL
METAL
METAL
                                                                                                                                                                                                                                                                                                                                                                                                       METAL
                                                                                                                                                                                                                                                                                                                                                                                                                            METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                            METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     METAL
                                                                                                                                                                                                                                                                                                                                                                              METAL
                                                                                                                                                                                                                                                                                                                                                                                           METAL
                                                                                                                                                                                                                                                                                                                                                                       WETAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          METAL
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUCLEOTIDE SEQUENCE.

STRAIN=Wistar; TISSUE=Skin;

RA Okada A., Basset P.;

RA Okada A., Basset P.;

RA Okada A., Basset P.;

The cloning of the cDNA encoding rat gelatinase A from a rat skin wound cDNA library.";

Submitted (JUL-1996) to the EMBL/GenBank/DDBJ databases.

LIB-ALA-TIC ACTIVITY: Cleavage of gelatin type I and collagen types

IL -- CATALYTIC ACTIVITY: Cleavage of gelatin type I and collagen types

IV, V. VII, X. Cleaves the collagen-like sequence Pro-Gin-Gly-|-

CC I-COPACTOR: Binds 4 calcium ions per subunit (By similarity).

CC -- COPACTOR: Binds 2 zinc ions per subunit (By similarity).

CC -- SUBUNIT: Ligand for integrin alpha-V/beta-3.

CC -- SUBUNIT: Ligand for integrin alpha-V/beta-3.

CC -- SUBUNIT: Ligand for integrin alpha-V/beta-3.

CC -- STMILARITY: Belongs to the peptidase MIOA family.

CC -- SIMILARITY: Contains 3 fibronectin type-II domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammallai, Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
Muroidea; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                 Gaps
Calcium 4 (via carbonyl oxygen) (By similarity).
                                                                   Cysteine Switch (Potential).
N-linked (GlCNAc. . .) (Potential)
N-linked (GlCNAc. . .) (Potential)
By similarity.
1CC246B270B440C8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P33436; P97581;
01-FEB-1994 (Rel. 28, Created)
01-FEB-1994 (Rel. 28, Last sequence update)
13-SEB-2005 (Rel. 48, Last annotation update)
72 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A)
                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=91249363; PubMed=7916617;
Marti H.P., McNeil L., Davies M., Martin J., Lovett D.H.;
"Homology cloning of rat 72 kDa type IV collagenase: cytokine s
second-mesenger inducibility in glomerular mesangial cells.";
Biochem. J. 291:441-446(1993).
                                                                                                                                                                                                                                                                                   100.0%; Score 54; DB 1; Length 662; 100.0%; Pred. No. 0.47; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     , 621316; Mmp2.
GO:0004228; P:gelatinase A activity; IDA.
GO:0008237; P:metallopeptidase activity; TAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              662 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; X71466; CAA50583.1; -; mRNA.
BMBL; U66565; AAB41692.1; -; mRNA.
PIR; S34780; S34780.
HSSP; P08253; IRTG.
                                                                                                                                                                                                                    73803 MW;
                                                                                                                                                                                                                                                                                                                            ilarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100 PRCGNPDVA 108
```

```
1 PRCGNPDVA 9
                                                                                                                                                                         NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                             NUCLEOTIDE SEQUENCE.
                                                                                                                                                           NCBI_TaxID=10116;
                                                                                                               Mmp2 protein.
Name=Mmp2;
                                                                                                                                                                                                                                                                                                                                                     TISSUE=Lung;
                                                                        Q6GMM9 RAT
                                                                 RESULT 16
                               8
                                            요
Activation peptide.
72 kDa type IV collagenase.
Fibronectin type-II 1.
Fibronectin type-II 2.
Fibronectin type-II 3.
Hemopexin-like.
Collagenase-like 1.
Collagenase-like 2.
By similarity 2.
By similarity 3.
Calcium 1 (By similarity).
Calcium 2 (By similarity).
Zinc 1 (By similarity).
Zinc 1 (By similarity).
Calcium 3 (By similarity).
Calcium 3 (By similarity).
Calcium 3 (Wa similarity).
                                                                                                                                                                                                                                                                                                                       Similarity).

Calcium 2 (By similarity).

Zinc 1 (By similarity).

Calcium 3 (By similarity).

Calcium 1 (By similarity).

Calcium 3 (By similarity).

Zinc 2 (catalytic) (By similarity).

Calcium 4 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                 Calcium.
similarity).
Sinc 1 (By similarity).
Zinc 1 (Yia carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                  Calcium 4 (via carbonyl oxygen) (By similarity).
Calcium 4 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                      (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                             Cysteine Switch (Potential).
N-linked (GlCNAc. . ) (Potential)
N-linked (GlCNAc. . ) (Potential)
                                                                                                                                                                                                                                                                                                                  Calcium 2 (via carbonyl oxygen)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7496B34B0A21884B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 By similarity.
A -> S (in Ref. 2).
A -> G (in Ref. 2).
N -> S (in Ref. 2).
N -> N (in Ref. 2).
A -> S (in Ref. 2).
                                                                                                                                                                                                                                                                                                                                                                                               similarity)
Calcium 4 (
                                                                                                                                                                                                                                                                                                                                                                                                             similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                         Bimilarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ψ.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                   575
644
662
42
286
369
435
586
74182 h
                                                                                                                                                                  193
                                                                                                                                                                                                                                                                                                                                204
206
208
209
211
403
407
413
                                                                                                                                                                                                                                                                                                                                                                                                      523
                                                                                                                                                                                                                                                                                                                                                                                                                                 620
                                                                                                                                                                                                                                                                                                                   202
                                                                                                                                                                                                                                                                                                                                                                                                                   571
                                                                                                                                                                                                                                                                                                                                                                                                                                                            644
471
42
286
369
435
586
662 AA;
                                                                                                                                                                                                                                                    168
178
180
185
185
                                                                                                                                                                                                                                                                                                                                                     209
211
403
403
413
478
                                                                                                                                                                                                                                                                                             193
                                                                                                                                                                                                                                                                                                                                                                                                      523
                                                                                                                                                                                                                                                                                                                                                                                                                                 620
                                                                                                                                                                                                                                                                                                                                                                                                                                              102
575
                                                                                                                                                                                                                                                                                                                                 204
                                                                                                                                                                                                                                                                                                                                                                                                                   571
                                                                                                                                                            Zinc; Zymogen.
SIGNAL
                                                                                                                                                                                CHAIN
DOMAIN
DOMAIN
DOMAIN
DOMAIN
REGION
REGION
REGION
ACT SITE
METĀL
                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
DISULFID
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                         PROPEP
                                                                                                                                                                                                                                                    METAL
METAL
METAL
                                                                                                                                                                                                                                                                         METAL
                                                                                                                                                                                                                                                                                                                                                     METAL
METAL
METAL
METAL
                                                                                                                                                                                                                                                                                                                                                                                                                   METAL
                                                                                                                                                                                                                                                                                                                  METAL
                                                                                                                                                                                                                                                                                                                                       METAL
                                                                                                                                                                                                                                                                                             METAL
                                                                                                                                                                                                                                                                                                                                METAL
                                                                                                                                                                                                                                                                                                                                                                                        METAL
                                                                                                                                                                                                                                                                                                                                                                                                      METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                 METAL
                                                                                                                                                                                                                                                                                                     METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                              SITE
```

```
MEDILINE-229825; PubMed=12477932; DOI=10.1073/pnas.242603899; MEDILINE-229825; PubMed=12477932; DOI=10.1073/pnas.242603899; Strausberg R.L., Felingold B.A., Grouse L.H., Derge J.G., Chuler G.D., Riausner R.L., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., Altschul S.F., Zeberg B. B., Buetcow K.H., Schaefer C.F., Bhata N.K., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Uddin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramon R.D., Mullahy S.J., Bosak S.A., McZwan P.J., McKernan K.J., Malek J.A., Gunarante P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A., Fahey J., Helton B., Ketteman M., Madan A., Young A.C., Shevchenko Y., Boulfard G.G., Blakealey R.W., Touchman J.W., Green B.D., Dickson M.C., Rodriquez A.C., Grimwood J., Schmutz J., Myers R.M., Schmerch A., Schein J.B., Jones S.J.M., Marra M.A.; Schaibs U.S., Marra M.A.; Schein J.B., Jones S.J.M., Marra M.A.;
                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                 Rattus norvegicus (Rat).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Buarchontoglires; Glires; Rodentia; Sciurognathi;
Muroidea; Muridae; Murinae; Rattus.
                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NIH WGC Project;

L Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.

R GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.

GO; GO:0005278; C:extracellular matrix (sensu Metazoa); IEA.

R GO; GO:0008270; F:metalloendopeptidase activity; IEA.

GO; GO:0008270; F:zinc ion binding; IEA.

GO; GO:000820; P:zinc ion binding; IEA.

R InterPor; IPR000562; FW LYDe2_col_bd.

R InterPor; IPR001818; Pept M.OA M.2B.

R InterPor; IPR001818; Pept M.OA M.2B.

R InterPor; IPR000625; Pept M.Zn_BS.

R InterPor; IPR000615; Pept M.Zn_BS.

R Pfam; PF00040; file; PeptIdase_M.

R Pfam; PF00041; PeptIdase_M.

R Pfam; PR00041; FWIYEBII.

R PRINTS; PR00131; PeptIdase_MIO, 1.

R PRINTS; PR00131; PeptIdase_MIO, 1.

R PRNTS; PR00135; MATRIXIN.

R SWART; SM00120; HX; 4.

R PROSITE; PS00123; ZAMC; 1.

R PROSITE; PS00023; FN2_1; 3.
                                               ö
Query Match 100.0%; Score 54; DB 1; Length 662; Best Local Similarity 100.0%; Pred. No. 0.47; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                     05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                               662 AA.
                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and mouse cDNA sequences."
                                                                                                                                                                                                                                            QGGMM9_RAT PRELIMINARY;
QGGMM9;
                                                                                                                                 100 PRCGNPDVA 108
```

```
PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
DOMAIN
REGION
REGION
REGION
ACT SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULPID
                                                                                                                                                                                                                                                                                                                                                                                       CHAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                       PROPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         METAL
METAL
METAL
METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WETAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WETAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SITE
      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                    Gallus gailus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Aimes R.T., French D.L., Quigley J.P., "Cloning of a 72 kba matrix metalloproteinase (gelatinase) from chicken embryo fibroblasts using gene family PCR: expression of the gelatinase increases upon malignant transformation."; Biochem. J. 300:729-736(1994).
PSS1092; FNZ_2; 3.

$500024; HEMOPEXIN; 1.

PS00142; ZINC_PROTEASE; 1.

Hydrolaes; Metal-binding; Metalloprotease; Protease; Zinc.
662 AA; 74149 MW; C56BD787473FC03E CRC64;
                                                                                                                                                                                                                                                                                                      01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
13-SEP-2005 (Rel. 48, Last annotation update)
12 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A).
                                                                                                                                       ö
                                                                                                  100.0%; Score 54; DB 2; Length 662;
100.0%; Pred. No. 0.47;
ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIMILARITY: Belongs to the peptidase M10A family. SIMILARITY: Contains 3 fibronectin type-II domains. SIMILARITY: Contains 1 hemopexin-like domain.
                                                                                                                                                                                                                                                                                      663 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; U07775; AAA19596.1; -; mRNA.

PIR; S46492; S46492.

HSSP; P08253; 1QIB.

MEROPS; M10.003; -.

Ensembl; ENSGALGO000003580; Gallus gallus.

InterPro; IPR000562; FN type2 col_bd.

InterPro; IPR000585; Hemopexin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=Embryo;
MEDLINE=94280397; PubMed=8010954;
                                                                                                Query Match
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                        100 PRCGNPDVA 108
                                                                                                                                                                   1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gallus.
NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                     CHICK
   PROSITE;
PROSITE;
PROSITE;
Calcium;
                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                    090611;
                                                                                                                                                                                                                                                  RESULT 17

MWP2 CHICK

MWP2 CHICK

DG 09061D

DT 01-NOV

OC Bukary

OC Archory

RY MEDLIN

RA Aimes

RY T Chen J

RY REDLIN

RY Chen J

RY CHEN
   SKERE
                                                                                                                                                                                                  셤
                                                                                                                                                                      8
```

```
Gарв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Calcium 2 (By similarity).

Zinc 1 (By similarity).

Calcium 3 (By similarity).

Calcium 1 (By similarity).

Calcium 3 (By similarity).

Zinc 2 (catalytic) (By similarity).

Calcium 4 (via carbonyl oxygen) (By similarity).

Calcium 4 (via carbonyl oxygen) (By similarity).
                                                                                                                                                                                                                   PROSITE; PS00546; CYSTEINE SWITCH; 1.
PROSITE; PS00023; FN2_1; 3.
PROSITE; PS00024; HEMÖPEXIN; 1.
PROSITE; PS00042; HEMÖPEXIN; 1.
PROSITE; PS00142; ZIVC PROTEASE; 1.
Calcium; Collagen degradation; Direct protein sequencing;
Protease; Repeat; Signal; Zinc; Zymogen.
                                                                                                                                                                                                                                                                                                                                                                             Activation peptide.
72 kDa type IV collagenase.
Fibronectin type-II 1.
Fibronectin type-II 2.
Fibronectin type-II 3.
Hemopexin-like.
Collagenase-like 1.
Collagenase-like 2.
By similarity.
By similarity.
Calcium 1 (By similarity).
Calcium 2 (By similarity).
Zinc 1 (By similarity).
Zinc 1 (By similarity).
Calcium 3 (By similarity).
Calcium 3 (By similarity).
Calcium 3 (By similarity).
Calcium 3 (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           calcium 4 (via carbonyl oxygen)
amilarity).
calcium 4 (via carbonyl oxygen)
aimilarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Calcium 2 (via carbonyl oxygen) similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (via carbonyl oxygen)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 54; DB 1; Length 663; llarity 100.0%; Pred. No. 0.47; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cysteine switch (Potential)
By similarity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P -> 0 (in Ref. 2).
W -> T (in Ref. 2).
T -> I (in Ref. 2).
S06FDA4E67C3EBCA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              similarity).
Zinc 1 (By similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Calcium 2 (1
similarity)
                                              FEGN; PF00040; ff12; 3.
FEGN; PF00045; Hemopexin; 4.
FEGN; PF000413; Peptidase M10; 1.
FEGN; PF03933; Peptidase M10; 1.
PRINTS; PR00013; FNTYPEII.
PRINTS; PR00138; MATRIXIN.
SWART; SW00059; FN12; 3.
SWART; SW00059; FN2; 3.
SWART; SW00120; HX; 4.
InterPro, IPR001818; Pept M10A M12B.
InterPro, IPR006025; Pept M Zn BS.
InterPro, IPR006026; PeptIdase M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 40 P
116 W
122 T
74941 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99
472
40
116
122
663 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
9; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001
2003
2008
2008
4004
410
410
                                                                                                                                                                                                                                                                                                                                                                                   27
107
107
225
283
348
346
107
1131
1131
1145
1177
1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           524
```

σ

q

97 PRCGNPDVA 105

Search completed: February 21, 2006, 18:42:03 Job time : 90.2368 secs

44 54 100.0 25 ; Search time 90.9474 Seconds (without alignments) 43.480 Million cell updates/sec GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd. 70 Total number of hits satisfying chosen parameters: 2443163 segs, 439378781 residues Post-processing: Minimum Match 100% Maximum Match 100% Listing first 500 summaries February 21, 2006, 17:57:40 OM protein - protein search, using sw model BLOSUM62 Gapop 10.0 , Gapext 0.5 geneeqp1980s:*
geneeqp1990s:*
geneeqp2000s:*
geneeqp2001s:*
geneeqp2003s:*
geneeqp2003s:*
geneeqp2003s:* Minimum DB seq length: 0 Maximum DB seq length: 200000000 US-10-601-059-12 54 A_Geneseq_21:* 1: genesecm1980 1 PRCGNPDVA 9 Copyright

Perfect score:

Run on:

Sequence:

Scoring table:

Searched:

Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		de			SUMMARIES	
Result		Query				
No.	Score	Match	Match Length DB	8	ID	Description
н	54	100.0	σ	9	ABP97134	Abp97134 Human mat
8	54	100.0	0	9	ABG76320	
٣	54	100.0	0	œ	ADQ17095	Adq17095 Human mat
4		100.0	σ	σ	ADV68476	Adv68476 Human mat
5		100.0	11	Φ	ADJ37569	Adj37569 MMP-2 pro
ø	54	100.0	14	7	AAY07331	Aay07331 Matrix me
7	54	100.0	14	4	AAU09136	_
80	54	100.0	14	9	ABG76327	Abg76327 Human MMP
σ	54	100.0	14	7	ADM48669	Adm48669 Human mat
10	54	100.0	14	œ	ADQ17102	Adq17102 Human mat
11	54	100.0	17	9	ABG76328	Abg76328 Human MMP
12	54	100.0	17	œ	ADQ17103	Adq17103 Human mat
13	54	100.0	19	9	ABP97133	Abp97133 Human mat
14	54	100.0	19	9		Abg76319 Human mat
15	54	100.0	19	œ	ADQ17094	Adq17094 Human mat
16	54	100.0	19	σ	ADV68475	Adv68475 Human mat
17	54	100.0	23	~	AAY07359	Aay07359 Matrix me
18	54	100.0	43	9	ABP97137	Abp97137 Human mat
19	54	100.0	43	9	ABG76323	Abg76323 Partial s
20	54	100.0	43	α	ADQ17098	Adq17098 Human mat
21	54	100.0	43	σ	ADV68479	
22	54	100.0	44	9	ABP97124	Abp97124 Human mat
23	54	100.0	44	9	ABG76310	Abg76310 Human mat
24	24	100.0	44	œ	ADQ17085	Adq17085 Human mat

166 Human ma 1329 Peptide 166 Protein 146 Human pe		Complete State of the State of	Abb90738 Human Tum Abu5445 Human mut Abu5445 Human mut Abp97136 Human mut Abg76322 Human mut Add18578 Human mut Add18578 Human mut Add18578 Human mut Add105797 Human mut Add10579 Human mut Add10903 IP Protease- Adv68478 Human mut Ade62857 Rat Prote Add62270 Rat Prote Add6270 Rat Prote Add6270 Rat Prote Add62857 Rat Prote Add6595 Chicken m Adt6595 Chicken m Adt6599 Chicken m Adt6599 Novel hum Abg23999 Novel hum
ADV6846 4 AAM3082 4 ABB2266 5 ABG4014 2 AAY0734	50750754811		ᲡᲡᲡᲘᲘᲘᲡᲡᲡᲔᲛᲔᲑᲡᲡᲐᲥᲛᲔᲑ
100.0 100.0 44 100.0 100.0	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		5.4 100.0 660 5.4 100.0 662 5.4 100.0 662 5.4 100.0 662 5.4 100.0 663 5.4 100.0 663 5.4 100.0 663 5.4 100.0 663 5.4 100.0 663 5.4 100.0 663
2 2 2 2 2 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 4 4 4 4 4 4 4 4 6 0 0 0 0 0 0 0 0 0 0 0	1

ALIGNMENTS

ABP97134 standard; peptide; 9 AA.

RESULT 1 ABP97134

Human; matrix metalloproteinase; MMP; anticancer; wound healing; matrix metalloproteinase inhibitor; anticumour; antiangiogenic; cardiant; wascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic; vulnerary; cerebroprotective; antidiabetic; ophthalmological; tumour; defarmatological; metagatic; non-metagatic; vascularised; heart disease; non-vascularised; surgical incision; chronic wound; stroke; angiogenesis; macular degeneration; diabetic retinopathy; cleavage region. Human matrix metalloproteinase 2 cleavage region peptide SEQ ID NO:12. (first entry) Homo Bapiens 24-JUN-2003 ABP97134;

WO2003018748-A2

```
The present invention relates to peptide inhibitors of metalloproteinases (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have peptide sequences related to the cleavage regions of the proenzyme forms of the MMPS. The peptide inhibitors are useful for stimulating cellular proliferation of fibroblasts or keratinocytes, promoting healthy skin development, treating wounds, preventing scarring, improving skin tone, reducing wrinkling and for simulating the development of smooth, healthy skin. The peptide inhibitors are useful as anti-aging and wound healing compounds. ABG76309-ABG76321 represent peptide inhibitors of MMPs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention provides peptides and compositions containing such peptides that are useful as agents to maintain healthy skin and to promote the condition of the skin. The invention is useful for increasing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Composition used for preventing and treating wrinkles and treating wounds comprises peptide having sequence related to matrix metalloproteinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fibronectín; healthy skin; wrinkle; wound; vulnerary; dermatological; human; matrix metalloproteinase; MMP.
                                                                                                                                                              Novel peptide inhibitor of proteinase activity of matrix
metalloproteinases, e.g. matrix metalloproteinase-2, useful for
stimulating cellular proliferation of fibroblasts or keratinocytes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human matrix metalloproteinase-2 (MMP2) cleavage region peptide #3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 54; DB 6; Length 9; 100.0%; Pred. No. 2e+06; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 1; SEQ ID NO 12; 60pp; English.
                      (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                     Malik S, Villanueva JM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADQ17095 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                            Claim 1; Page 44; 120pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-DEC-2002; 2002US-00335207.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-DEC-2002; 2002US-00335207.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity 100.0%;
9; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2004-506456/48.
                                                                                                               WPI; 2003-289980/28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (MALI/) MALIK S. (QUIR/) QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US2004127421-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-SEP-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADQ17095;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Malik S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    proenzyme
                                                                     Quirk S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 3
ADQ17095
X4X1X4XFFFXXXX000000000XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          윤
                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention describes an anti-angiogenic composition (I) for inhibiting expression of vascular endothelial growth factor (VEGF). (I) comprises an effective amount of a peptide inhibitor of matrix metalloproteinase (MMP), where the peptide can inhibit the expression of VEGF. (I) has cytostatic, vulnerary, cardiant, cerebroprotective, antidiabetic, ophthalmological and dermatological activities. (I) can be used for inhibiting expression of VEGF, and so can be used for inhibiting expression of VEGF, and so can be used for inhibiting growth of tumours and diminishing tumours size. The tumour can be careated for innerestatic, vascularised, non-vascularised, hard or soft. (I) is also useful for treating injuries including wounds, surgical incisions chronic wounds, heart diseases and stroke. (I) is also useful contraction and diabetic retinopathy. The present sequence represents a human MMP cleavage region peptide, which is used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gapa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2; cleavage region; procenzyme form; cellular proliferation; fibroblast; keratinocyte; healthy skin development; wound healing; scarring; skin tone; wrinkle; anti-aging; vulnerary.
                                                                                                                                                                                                                                                                                                                            Anti-angiogenic composition comprising peptide inhibitor of matrix metalloproteinase, useful for decreasing the expression of vascular endothelial growth factor and treating cancers and tissue injuries.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human matrix metalloproteinase (MMP) peptide inhibitor #12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 54; DB 6; Length 9; 100.0%; Pred. No. 2e+06; ive 0; Mismatches 0; Indels
                                                                                                                                                                                    (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 17; Page 45; 103pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABG76320 standard; peptide; 9 AA.
                                                                                      16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                          15-AUG-2002; 2002WO-US026319.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-AUG-2002, 2002WO-US026198.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                               WPI; 2003-381408/36.
                                                                                                                                                                                                                                   Quirk S, Weart IF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO2003016520-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
06-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27-FEB-2003
```

Query Match Matches

ò

ABG76320;

ö

Gaps

m

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This invention relates to a novel composition for inhibiting growth of chondrosarcoma cells comprising an amount of a peptide and a pharmaceutical carrier. The invention may be useful for the production of compounds with a cytostatic activity acting as metalloprotease 1 inhibitors, metalloprotease 2 inhibitors, metalloprotease 3 inhibitors, metalloprotease 6 inhibitors, metalloprotease 7 inhibitors, metalloprotease 8 inhibitors, metalloprotease 9 inhibitors, metalloprotease 9 inhibitors, metalloprotease 11 inhibitors, metalloprotease 12 inhibitors, metalloprotease 13 inhibitors of metalloprotease 12 inhibitors, metalloprotease 13 inhibitors of metalloprotease 12 inhibitors, metalloprotease 13 inhibitors of metalloprotease inhibitors of composition is useful for decreasing and inhibiting the growth of chondrosarcoma cells which in turn inhibits growth of a bone tumor or diminishes a size of a bone tumor, useful for
the amount of fibronectin in tissue. The invention is also useful for encouraging the maintenance and development of healthy skin, preventing and treating wrinkles and for treating wounds. The invention acts as vulnerary and dermatological agents. The present sequence is human matrix metalloproteinase (MMP) cleavage region peptide. This sequence is used in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A composition for decreasing and inhibiting the growth of chondrosarcoma cells, useful for treating chondrosarcomas and bone cancer, comprises a matrix metalloproteinase inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cell growth; pharmaceutical; cytostatic; metalloprotease 1 inhibitor; metalloprotease 2 inhibitor; metalloprotease 3 inhibitor; metalloprotease 3 inhibitor; metalloprotease 5 inhibitor; metalloprotease 6 inhibitor; metalloprotease 7 inhibitor; metalloprotease 7 inhibitor; metalloprotease 9 inhibitor; metalloprotease 10 inhibitor; metalloprotease 10 inhibitor; metalloprotease 11 inhibitor; metalloprotease 12 inhibitor;
                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human matrix metalloproteinase-2 cleavage region polypeptide SegID12
                                                                                                                                                                                                                        ó
                                                                                                                                                                            100.0%; Score 54; DB 8; Length 9; 100.0%; Pred. No. 2e+06; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             metalloprotease inhibitor; bone tumor; sarcoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 16; SEQ ID NO 12; SOpp; English
                                                                                                                                                                                                                                                                                                                                                                                                  ADV68476 standard; peptide; 9 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-JUN-2003; 2003US-00601059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20-JUN-2003; 2003US-00601059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                               σ
                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                         Query Match
Best Local Similarity
Post Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2005-047374/05.
                                                                                                                                                                                                                                                                                   PRCGNPDVA
                                                                                                                                                                                                                                                               PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (YANG/) YANG S.
(QUIR/) QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US2004259802-A1
                                                                                                                                           Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-DEC-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10-MAR-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                         ADV68476;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           fang S,
                                                                                                                                                                                                                                                                                                                                                                              RESULT 4
        88888888
                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                               8
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to a method for the treatment of a wound comprising the administration of a matrix metalloproteinase (MMP) prodomain peptide (). The invention also encompasses a kit containing the MMP prodomain peptide and instructions for its use. The MMP prodomain peptides promote reepithelialisation, provisional matrix formation and angiogenesis, and may be derived from MMP-1, MMP-2 or MMP-9. They may be used for treating wounds, particularly chronic wounds in burns patients or those with diabetes. The present sequence represents a specifically claimed MMP-2 prodomain peptide of the invention.
    that
y be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  φ
                                                                                                                                                                                                                                                                                                                                                                 Matrix metalloproteinase; MMP prodomain peptide; reepithelialisation; provisional matrix formation; angiogenesis; wound healing; burn; diabetes; vulnerary; matrix metalloproteinase-2; MMP-2.
treating chondrosarcomas and bone cancers. The present sequence is th of a peptide derived from a human matrix metalloproteinase which may used during the development of a composition of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Use of matrix metalloproteinase prodomain peptides for the treatment wound e.g. chronic wound in the patients with diabetes or burns.
                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 11;
                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                        MMP-2 prodomain peptide for use in wound healing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 54; DB 8; L
100.0%; Pred. No. 0.039;
iive 0; Mismatches 0;
                                                                                    ; Score 54; DB 9;
; Pred. No. 2e+06;
0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note= "N-terminal acetyl"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note= "C-terminal amide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                  ADJ37569 standard; peptide; 11 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 10; Page 25; 35pp; English.
                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2002US-0396366P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-JUL-2003; 2003WO-US022453
                                                                                                                                                                                                                                                                                                             22-APR-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                  9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (UNMI ) UNIV MICHIGAN
                                                                                                                                               6
                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2004-143032/14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
Matches 9; Conserv
                                                                                      Query Match
Best Local Similarity
Matches 9; Conserv
                                                                                                                                              PRCGNPDVA
                                                                                                                                                                            PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO2004006864-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 11 AA;
                                                            Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Key
Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                              Jnidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-JUL-2002;
15-JUL-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Livant DL;
                                                                                                                                                 _
                                                                                                                                                                            н
                                                                                                                                                                                                                                                                                ADJ37569;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                      RESULT
    888888
                                                                                                                                                                                                                                                                                8
                                                                                                                                                                         셤
```

AAY07331;

셤

ሯ

```
The invention describes a novel method of treating and preventing ophthalmological disorders comprising topically administering to the eye a composition delivering a therapeutic agent to the posterior segment of the eye. The composition optionally includes a polymeric suspension agent. The test is used for treating ophthalmic disorders, preferably posterior segment ophthalmic disorders, particularly retinal neovascularisation, mecular codema, ocular insult, ocular manifestation of systemic disease e.g. viral infection, arthritis and rosacea and atrophic disorders of the posterior segment; macular degeneration, disbetic retinopathy retinopathy of prematurity (ROP), glaucoma, centing pigmentosa (RP), posterior uveitis and endophialmitis. The composition may be self administered without using anaesthetics to deliver therapeutically effective amounts of active agent. This peptide sequence is a Martix metalloproteinase (MMP) inhibitory peptide #4, a therapeutic peptide based on the conserved region of MMP pro-collagenase, (see AAU09130), described in the method of the invention
                                        Matrix metalloproteinase; MMP; proenzyme; ophthalmological; retinal neovascularisation; macular degeneration; diabetic retinopathy; retinopathy of prematurity; ROP; retinitis pigmentosa; RP; macular oedema; glocena; posterior uveitis; endophthalmitis; coular insult; arthritis; rosacea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human, peptide inhibitor; matrix metalloproteinase-2; MMP-2;
cleavage region; proenzyme form; cellular proliferation; fibroblast;
keratinocyte; healthy skin development; wound healing; scarring;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Treating and preventing ophthalmological disorders e.g. retinal neovascularization comprises administering composition comprising therapeutic agent e.g. hydroxamic acid, and optionally polymeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity 100.0%; Score 54; DB 4; Length 14; Similarity 100.0%; Pred. No. 0.05; 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human MMP-2 peptide #1 tested in NHDF migration assay.
Matrix metalloproteinase (MMP) inhibitory peptide #4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Roy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rowe-Rendleman C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABG76327 standard; peptide; 14 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 21; Page 17; 52pp; English.
                                                                                                                                                                                                                                                                                                                        07-MAR-2001; 2001WO-US007171
                                                                                                                                                                                                                                                                                                                                                                     10-MAR-2000; 2000US-00523102.
28-AUG-2000; 2000US-00648446.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-MAY-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                  (INSI-) INSITE VISION INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bowman LM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-616269/71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           suspension agent.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 14 AA;
                                                                                                                                                                                                                                WO200168053-A2
                                                                                                                                                                                                                                                                             20-SEP-2001
                                                                                                                                                                                   Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABG76327;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Si EC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 8
    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                Matrix metalloprotease; inhibitor; tissue damage; angiogenesis; antibody; arthritis; tumour growth; granulomatous inflammatory condition; enzyme; metastasis; sarcoidosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This peptide represents a matrix metalloprotease (WMP) inhibitor peptide of the formula: aal-aa2-aa3-aa4-C where aal and aa4 is R or K; aa2 is K, Or N; aa3 is P, A, G, L, I or V; and C is a cysteine having a free sulphydryl group. The peptides can be used to treat trissue damage caused by activated MMPs, e.g. for treating inappropriate angiogenesis, arthritis, tumour growth, invasion and metastasis and granulomatous inflammatory conditions such as sarcoidosis. Antibodies to the peptides can be used to detect the MMPs and can distinguish activated from latent enzyme. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PI field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matrix metallo:proteinase peptide(8) - used to inhibit enzyme in treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 54; DB 2; Length 14; 100.0%; Pred. No. 0.05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                     Matrix metalloprotease inhibitor peptide #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tissue damage caused by activated enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Stetlerste W, Krutzsh H;
                                                                                                                                                            AAY07331 standard; peptide; 14 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAU09136 standard; peptide; 14 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 3; Page 41; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              89US-00317407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           89US-00317407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                90US-00488460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (USDC ) US SEC OF COMMERCE. (USSH ) NAT INST OF HEALTH.
                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity 100.
                                                                                                                                                                                                                                                     (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRCGNPDVA 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1990-290458/38.
                       PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 14 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAR-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-FEB-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-DEC-2001
                                                                                                                                                                                                                                                   25-MAR-2003
16-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9010228-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-SEP-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Liotta LA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic.
```

RESULT 6

AAYO7331

DAAYO7331

AAYO7331

AAYO731

A

ö

Gaps

ö

Query Match Best Local S

AAU09136;

AAU09136 ID AAU0 XX AC AAU0 XX DT 19-D

RESULT 7

셤

8

```
NETKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JUL-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               proenzyme
                                                                                                                                                                                                                                                                                                                                                                                                                                       ADQ17102;
                                          Wetke S,
  (NETK/)
                                                                                                                                                                                                                                                                                                                                                                                                         ADQ17102
   ò
                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                              The present invention relates to peptide inhibitors of metalloproteinases (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have peptide sequences related to the cleavage regions of the proenzyme forms of the MMPS. The peptide inhibitors are useful for stimulating cellular proliferation of fibroblasts or keratinocytes, promoting healthy skin development, treating wounds, preventing scarring, improving skin tone, reducing wrinkling and for simulating the development of smooth, healthy skin. The peptide inhibitors are useful as anti-aging and wound healing compounds. The present sequence represents a peptide tested in a normal human dermal fibroblast (NHDF) migration assay in the examples of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                Novel peptide inhibitor of proteinase activity of matrix metalloproteinases, e.g. matrix metalloproteinase-2, useful for stimulating cellular proliferation of fibroblasts or keratinocytes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cancer; metastasis; matrix metalloproteinase-2; MMP-2; vaccine; immune response; gene therapy; cytostatic; enzyme; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 54; DB 6; Length 14; 100.0%; Pred. No. 0.05; tive 0; Mismatches 0; Indels
skin tone; wrinkle; anti-aging; vulnerary;
normal human dermal fibroblast migration assay; NHDP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human matrix metalloproteinase-2 (MMP-2) peptide #8
                                                                                                                                                      (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                           Example 5; Page 54; 120pp; English.
                                                                                                                                                                          Malik S, Villanueva JM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADM48669 standard; peptide; 14 AA.
                                                                                                              16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                           15-AUG-2002; 2002WO-US026198.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-JAN-2002; 2002US-0351317P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-JAN-2003; 2003US-00350258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVA 9
                                                                                                                                                                                              WPI; 2003-289980/28
                                                                                                                                                                                                                                                                                                                                                                                    present invention
                                                  WO2003016520-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JS2003139345-A1
                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 14 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   03-JUN-2004
                                                                      27-PEB-2003
                                                                                                                                                                          Quirk S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADM48669;
                                Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADM48669
 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
```

```
The present invention relates to novel synthetic oligopeptides effective in blocking cancer invasion and metastasis. The invention relates to matrix metalloprotesinase-2 (MMP-2) peptides. The synthetic oligopeptides are useful as pharmaceutical compositions for blocking or treating cancer invasion and metastases in a human patient. In particular, they are useful for treating brain cancer, lung cancer, skin cancer or breast cancer. The oligopeptides are also useful as vaccines for preventing these cancers, enhancing immune response or raising antibodies for assays used to diagnose diseases involving matrix metalloproteinases or clinical monitoring of the progression or regression of disease. They are also useful in gene therapy. The present sequence is a human MMP-2 peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                 New synthetic oligopeptide, useful for blocking or treating cancer invasion and metastases in a human patient, particularly as a vaccine for treating or preventing diagnosing brain cancer, lung cancer, skin cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Composition used for preventing and treating wrinkles and treating wounds comprises peptide having sequence related to matrix metalloproteinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Fibronectin; healthy skin; wrinkle; wound; vulnerary; dermatological; human; matrix metalloproteinase; MMP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 54; DB 7; Length 14; 100.0%; Pred. No. 0.05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human matrix metalloproteinase-2 (MMP2) 14-mer peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 1; SEQ ID NO 19; 60pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADQ17102 standard; peptide; 14 AA.
                                                                                                               Rath M;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 1; Fig 2; 11pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-DEC-2002; 2002US-00335207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-DEC-2002; 2002US-00335207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-SEP-2004 (first entry)
                                                                                                           Niedzwiecki A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9; Conservative
(NIED/) NIEDZWIECKI A. (RATH/) RATH M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRCGNPDVA 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2004-506456/48.
                                                                                                                                                                                  WPI; 2003-897356/82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Malik S, Quirk S;
                                                                                                                                                                                                                                                                                                                                                                 breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (MALI/) MALIK S.
(QUIR/) QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 14 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2004127421-A1
```

us-10-601-059-12.rag

```
ö
              The present invention provides peptides and compositions containing such peptides that are useful as agents to maintain healthy skin and to promote the condition of the skin. The invention is useful for increasing the amount of fibronectin in tissue. The invention is also useful for encouraging the maintenance and development of healthy skin, preventing and treating wrinkles and for treating wounds. The invention acts as vulnerary and dermatological agents. The present sequence is human matrix metalloprotesinase (MMP) peptide. This sequence is used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention relates to peptide inhibitors of metalloproteinases (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have peptide sequences related to the cleavage regions of the proenzyme forms of the MMPS. The peptide inhibitors are useful for stimulating cellular proliferation of fibroblasts or keratinocytes, promoting healthy skin development, treating wounds, preventing scarring, improving skin tone, reducing wrinkling and for simulating the development of smooth, healthy skin. The peptide inhibitors are useful as anti-aging and wound healthy compounds. The present sequence represents a peptide tested in a normal human dermal fibroblast (NHDF) migration assay in the examples of the
                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2; cleavage region; proenzyme form; cellular proliferation; fibroblast; keratinocyte; healthy skin development; wound healing; scarring; skin tone; wrinkle; anti-aging; vulnerary; normal human dermal fibroblast migration assay; NHDF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel peptide inhibitor of proteinase activity of matrix metalloproteinases, e.g. matrix metalloproteinase-2, useful for stimulating cellular proliferation of fibroblasts or keratinocytes.
                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                      100.0%; Score 54; DB 8; Length 14; 100.0%; Pred. No. 0.05;
                                                                                                                                                                                                                                                                                             0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human MMP-2 peptide #2 tested in NHDF migration assay.
                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 5; Page 54; 120pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Duirk S, Malik S, Villanueva JM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABG76328 standard; peptide; 17 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         L5-AUG-2002; 2002WO-US026198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                        Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                           PRCGNPDVA 13
                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2003-289980/28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO2003016520-A1.
                                                                                                                                                                                                                 Sequence 14 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27-FEB-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABG76328;
                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                     *888888888888
                                                                                                                                                                                                                                                                                                                                    ሯ
                                                                                                                                                                                                                                                                                                                                                                       셤
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         peptides that are useful as agents to maintain healthy skin and to promote the condition of the skin. The invention is useful for increasing the amount of fibronectin in tissue. The invention is also useful for encouraging the maintenance and development of healthy skin, preventing and treating wrinkles and for treating wounds. The invention acts as unlergary and dermatological agents. The present sequence is human matrix metalloproteinase (MMP) peptide. This sequence is used in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Composition used for preventing and treating wrinkles and treating wounds comprises peptide having sequence related to matrix metalloproteinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention provides peptides and compositions containing such
                                                                                                                                                                                                                                                                                                               Fibronectin; healthy skin; wrinkle; wound; vulnerary; dermatological; human; matrix metalloproteinase; MMP.
                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 54; DB 8; Length 17; llarity 100.0%; Pred. No. 0.061; Conservative 0; Mismatches 0; Indels
                                       100.0%; Score 54; DB 6; Length 17; 100.0%; Pred. No. 0.061;
                                                                                                                                                                                                                                                                                     Human matrix metalloproteinase-9 (MMP9) 17-mer peptide.
                                                                   ;
0
                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 1; SEQ ID NO 20; 60pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABP97133 standard; peptide; 19 AA.
                                                                                                                                                                                                 ADQ17103 standard; peptide; 17 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-DEC-2002; 2002US-00335207.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-DEC-2002; 2002US-00335207
                                                                                                                                                                                                                                                         (first entry)
                                                                     9; Conservative
                                                                                                                           8 PRCGNPDVA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRCGNPDVA 16
                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2004-506456/48.
                                                                                                1 PRCGNPDVA
                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (MALI/) MALIK S.
(QUIR/) QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                        US2004127421-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 17 AA;
             Sequence 17 AA;
                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                          23-SEP-2004
                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         proenzyme
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                              ADQ17103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Walik S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                          Query Match
                                                         Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Loca
Matches
                                                                                                                                                                     RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABP97133
ID ABP9
XX
                                                                                                                                                                                     ADQ17103
                                                                                                                                                                                                               ăß
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                   ð
                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

```
The present invention relates to peptide inhibitors of metalloproteinases (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have peptide sequences related to the cleavage regions of the proenzyme forms of the MMPS. The peptide inhibitors are useful for stimulating cellular proliferation of fibroblasts or keratinocytes, promoting healthy skin development, treating wounds, preventing scarring, improving skin tone, reducing wrinkling and for simulating the development of smooth, healthy skin. The peptide inhibitors are useful as anti-aging and wound healing compounds. ABG76309-ABG76321 represent peptide inhibitors of MMPs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fibronectin, healthy skin, wrinkle; wound, vulnerary; dermatological; human; matrix metalloproteinase; MMP.
                                                Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2;
cleavage region; proenzyme form; cellular proliferation; fibroblast;
keratinocyte; healthy skin development; wound healing; scarring;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel peptide inhibitor of proteinase activity of matrix metalloproteinases, e.g. matrix metalloproteinase-2, useful for stimulating cellular proliferation of fibroblasts or keratinocytes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human matrix metalloproteinase-2 (MMP2) cleavage region peptide #2.
     Human matrix metalloproteinase (MMP) peptide inhibitor #11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 54; DB 6; Length 19; 100.0%; Pred. No. 0.068; ive 0; Mismatches 0; Indels
                                                                                                                         skin tone; wrinkle; anti-aging; vulnerary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Quirk S, Malik S, Villanueva JM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADQ17094 standard; peptide; 19 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Page 44; 120pp; English
                                                                                                                                                                                                                                                                                                                                                                   16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                                                                                                                                                                                                                                                        15-AUG-2002; 2002WO-US026198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-DEC-2002; 2002US-00335207.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-289980/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRCGNPDVA
                                                                                                                                                                                                                       WO2003016520-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 19 AA;
                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-SEP-2004
                                                                                                                                                                                                                                                                        27-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADQ17094;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention describes an anti-angiogenic composition (I) for inhibiting expression of vascular endothelial growth factor (VEGF). (I) comprises an effective amount of a peptide inhibitor of matrix metalloproteinase (WMP), where the peptide can inhibit the expression of VEGF. (I) has cytostatic, vulnerary, cardiant, cerebroprotective, antidiabetic, ophthalmological and dermatological activities. (I) can be used for inhibiting expression of VEGF, and so can be used for inhibiting growth of tumours and diminishing tumours size. The tumour can be used for inhibiting expression of VEGF, and so can be used for inhibiting growth of tumours and diminishing tumours size. The tumour can be used for inhibiting injuries including wounds, hard or soft. (I) is also useful for treating injuries including wounds, surgical incisions, chronic wounds, heart diseases and stroke. (I) is also useful for treating disperses and stroke. (I) is also useful macular degeneration and diabetic retinopathy. The present sequence represents a human MMP cleavage region peptide, which is used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                      Human; matrix metalloproteinase; MWP; anticancer; wound healing; matrix metalloproteinase inhibitor; antitumour; antiangiogenic; cardiant; vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic; vulnerary; cerebroprotective; antidiabetic; ophthalmological; tumour; dermatological; metastatic; non-metastatic; vascularised; heart disease; non-vascularised; surgical incision; chronic wound; stroke; angiogenesis; macular degeneration; diabetic retinopathy; cleavage region.
                                                                                             Human matrix metalloproteinase 2 cleavage region peptide SEQ ID NO:11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Anti-angiogenic composition comprising peptide inhibitor of matrix metalloproteinase, useful for decreasing the expression of vascular endothelial growth factor and treating cancers and tissue injuries.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 54; DB 6; Length 19; 100.0%; Pred. No. 0.068; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 17; Page 45; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABG76319 standard; peptide; 19 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-AUG-2002; 2002WO-US026319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 100...
Best Ocervative
                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2003-381408/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Quirk S, Weart IF;
                                                                                                                                                                                                                                                                                                                                                                                            WO2003018748-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 19 AA;
                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-MAY-2003
                                                24-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                             06-MAR-2003.
ABP97133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABG76319;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABG76319
ID ABG7
XX
AC ABG7
XX
DT 10-P
```

ઠ 용

ö

Gaps

```
This invention relates to a novel composition for inhibiting growth of chondrosarcoma cells comprising an amount of a peptide and a chondrosarcoma cells comprising an amount of a peptide and a production of compounds with a cytostatic activity acting as metalloprotease 1 inhibitors, metalloprotease 3 inhibitors, metalloprotease 4 inhibitors, metalloprotease 5 inhibitors, metalloprotease 6 inhibitors, metalloprotease 9 inhibitors, metalloprotease 9 inhibitors, metalloprotease 10 inhibitors, metalloprotease 11 inhibitors, metalloprotease 11 inhibitors, metalloprotease 12 inhibitors, cometalloprotease 12 inhibitors, metalloprotease 13 inhibitors, metalloprotease inhibitors and chondrosarcoma cells which in turn inhibits inhibiting the growth of chondrosarcoma cells which in turn inhibits growth of a bone tumor or diminishes a aize of a bone tumor, useful for treating chondrosarcomas and bone cancers. The present sequence is that if the peptide derived from a human matrix metalloproteinase which may be used during the development of a composition of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matrix metalloprotease; inhibitor; tissue damage; angiogenesis; antibody; arthritis; tumour growth; granulomatous inflammatory condition; enzyme; metastasis; sarcoidosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matrix metallo:proteinase peptide(8) - used to inhibit enzyme in treating tissue damage caused by activated enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This peptide represents a matrix metalloprotease (MMP) inhibitor peptide of the invention. The peptides can be used to treat tissue damage caused
  cells, useful for treating chondrosarcomas and bone cancer, comprises a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 54; DB 9; Length 19; 100.0%; Pred. No. 0.068;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matrix metalloprotease inhibitor peptide #23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                             Claim 16; SEQ ID NO 11; 50pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Stetlerste W, Krutzsh H;
                           matrix metalloproteinase inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY07359 standard; peptide; 23 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 1; Page 15; 61pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                89US-00317407,
90US-00488460.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 89US-00317407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (USDC ) US SEC OF COMMERCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          USSH ) NAT INST OF HEALTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1990-290458/38.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 19 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAR-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-FEB-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAR-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-MAR-2003
16-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO9010228-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            07-SEP-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY07359;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Liotta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY07359
     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                The present invention provides peptides and compositions containing such peptides that are useful as agents to maintain healthy skin and to promote the condition of the skin. The invention is useful for increasing the amount of fibronectin in tissue. The invention is also useful for encouraging the maintenance and development of healthy skin, preventing and treating wrinkles and for treating wounds. The invention acts as vulnerary and dermatological agents. The present sequence is human matrix metalloprotesinase (MMP) cleavage region peptide. This sequence is used in the exemplification of the invention.
                                                                                                                                                                                                                                         Composition used for preventing and treating wrinkles and treating wounds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A composition for decreasing and inhibiting the growth of chondrosarcoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                growth; pharmaceutical; cytostatic; metalloprotease 1 inhibitor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human matrix metalloproteinase-2 cleavage region polypeptide SeqID11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         metalloprotease 2 inhibitor; metalloprotease 3 inhibitor; metalloprotease 4 inhibitor; metalloprotease 5 inhibitor; metalloprotease 6 inhibitor; metalloprotease 7 inhibitor; metalloprotease 9 inhibitor; metalloprotease 9 inhibitor; metalloprotease 10 inhibitor; metalloprotease 11 inhibitor; metalloprotease 12 inhibitor; metalloprotease 11 inhibitor; metalloprotease 11 inhibitor; metalloprotease 11 inhibitor; metalloprotease 12 inhibitor; metalloprotease 13 inhibitor; metalloprotease 13 inhibitor; metalloprotease 13 inhibitor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 54; DB 8; Length 19;
100.0%; Pred. No. 0.068;
ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                   Claim 11; SEQ ID NO 11; 60pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADV68475 standard; peptide; 19 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-JUN-2003; 2003US-00601059.
30-DEC-2002; 2002US-00335207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-JUN-2003; 2003US-00601059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
9; Conserve
                                                                                                                                                                                          WPI; 2004-506456/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2005-047374/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRCGNPDVA
                                                                                                                                     Malik S, Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Quirk S;
                                               (MALI/) MALIK S.
(QUIR/) QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (YANG/) YANG S.
(QUIR/) QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JS2004259802-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 19 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-MAR-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-DEC-2004.
                                                                                                                                                                                                                                                                                                    proenzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADV68475;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADV68475

IID ADV6

XX

ADV6

XX

ADV6

XX

ADV6

XX

ADV6

XX

Cell

Ce
셤
```

Gaps

Thu Feb

```
SSXS
                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention describes an anti-angiogenic composition (I) for inhibiting expression of vascular endothelial growth factor (VEGF). (I) comprises an effective amount of a peptide inhibitor of matrix metalloproteinase (WMP), where the peptide can inhibit the expression of VEGF. (I) has cytostatic, vulnerary, cardiant, cerebroprotective, antidiabetic, ophthalmological and dermatological activities. (I) can be used for inhibiting expression of VEGF, and so can be used for inhibiting growth of tumours and diminishing tumours size. The tumour can be metastatic, non-metastatic, vascularised, non-vascularised, hard or soft. (I) is also useful for treating injuries including wounds, surgical incisions, chronic wounds, heart diseases and stroke. (I) is also useful for treating disorders characterised by excessive anglogenesis e.g. macular degeneration and diabetic retinopathy. The present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; matrix metalloproteinase; MMP; anticancer; wound healing; matrix metalloproteinase inhibitor; anticumour; antianglogenic; cardiant; vascular endothelial growth factor inhibitor; VBGF inhibitor; cytostatic; vulnerary; cerebroprotective; antidiabetic; ophthalmological; tumour; defamatological; metaetatic; non-metaetatic; vascularised; heart disease; non-vascularised; surgical incision; chronic wound; stroke; angiogenesis; macular degeneration; diabetic retinopathy; cleavage region.
                                arthritis, tumour growth, invasion and metastasis and granulomatous inflammatory conditions such as sarcoidosis. Antibodies to the peptides can be used to detect the MMPs and can distinguish activated from latent enzyme. (Updated on 25-MAR.2003 to correct PR field.) (Updated on 25-MAR.2003 to correct PR field.)
                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Anti-angiogenic composition comprising peptide inhibitor of matrix metalloproteinase, useful for decreasing the expression of vascular endothelial growth factor and treating cancers and tissue injuries.
activated MMPs, e.g. for treating inappropriate angiogenesis,
                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                   100.0%; Score 54; DB 2; Length 23; 100.0%; Pred. No. 0.083; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human matrix metalloproteinase 2 peptide SEQ ID NO:15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 26; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABP97137 standard; peptide; 43 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-AUG-2002; 2002WO-US026319.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRCGNPDVA 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q
                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
9; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-381408/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Quirk S, Weart IF;
                                                                                                                                                                                                                                                 Sequence 23 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABP97137;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABP97137

XX ABP97137

XX ABP97137

XX ABP97137

XX W Humi

XX W Humi

XX W Vulls

XX W Germ

XX W 
   8888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             윱
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention relates to peptide inhibitors of metalloproteinases (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have peptide sequences related to the cleavage regions of the proenzyme forms of the MMPS. The peptide inhibitors are useful for stimulating cellular proliferation of fibroblasts or keratinocytes, promoting healthy skin development, treating wounds, preventing scarring, improving skin tone, reducing wrinkling and for simulating the development of smooth, healthy skin. The peptide inhibitors are useful as anti-aging and wound healing compounds. The present sequence represents a partial sequence of human
represents a human MMP peptide, which is used in the exemplification of the present invention
                                                                                                                   Gapa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                            Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2;
cleavage region; proenzyme form; cellular proliferation; fibroblast;
keratinocyte; healthy skin development; wound healing; scarring;
skin tone; wrinkle; anti-aging; vulnerary.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   metalloproteinases, e.g. marrix metalloproteinase-2, useful for
stimulating cellular proliferation of fibroblasts or keratinocytes.
                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ô
                                                                                                                                                                                                                                                                                                                                                              Partial sequence from human matrix metalloproteinase-2 (MMP-2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6; Length 43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel peptide inhibitor of proteinase activity of matrix
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                     6; Length
                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 54; DB 6;
100.0%; Pred. No. 0.16;
tive 0; Mismatches
                                                                                                  0.16;
                                                                                     DB
                                                                                                                     0; Mismatches
                                                                                   100.0%; Score 54;
100.0%; Pred. No. 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                              ABG76323 standard; protein; 43 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Villanueva JM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Page 27; 120pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-AUG-2002; 2002WO-US026198
                                                                                                                                                                                                                                                                                                                               10-MAY-2003 (first entry)
                                                                  Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                               PRCGNPDVA 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRCGNPDVA 32
                                                                                                                                                   σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-289980/28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Quirk S, Malik S,
                                                                                                                                                   1 PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
les 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO2003016520-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 43 AA;
                                                     Sequence 43 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-FEB-2003
                                                                                                                                                                                                                                                                                              ABG76323;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Loc
Matches
                                                                                                                                                                                                                                RESULT 19
```

```
Yang S, Quirk S;
                                                                                                                                                           (YANG/) YANG S.
(QUIR/) QUIRK S.
                                                                         US2004259802-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 43 AA;
                                                     Ното варіепв.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-JUN-2003
                                                                                             23-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABP97124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABP97124
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                       peptides that are useful as agents to maintain healthy skin and to promote the condition of the skin. The invention is useful for increasing the amount of fibronectin in tissue. The invention is also useful for encouraging the maintenance and development of healthy skin, preventing and treating wrinkles and for treating wounds. The invention acts as whomeray and dematological agents. The present sequence is human matrix metalloprotesinase (WMP) wound site peptide. This sequence is used in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                Composition used for preventing and treating wrinkles and treating wounds comprises peptide having sequence related to matrix metalloproteinase
                                                                                                                                                                                                                                                                                                                                                                                                              present invention provides peptides and compositions containing such
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cell growth; pharmaceutical; cytostatic; metalloprotease 1 inhibitor; metalloprotease 2 inhibitor; metalloprotease 3 inhibitor; metalloprotease 4 inhibitor; metalloprotease 5 inhibitor; metalloprotease 5 inhibitor; metalloprotease 6 inhibitor; metalloprotease 6 inhibitor; metalloprotease 7 inhibitor;
                                                                                                                            Fibronectin; healthy skin; wrinkle; wound; vulnerary; dermatological; human; matrix metalloproteinase; MMP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                       Human matrix metalloproteinase-2 (MMP2) wound site peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 54; DB 8; Length 43; 100.0%; Pred. No. 0.16; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human matrix metalloproteinase-2 polypeptide SegID15.
                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; SEQ ID NO 15; 60pp; English.
                                       ADQ17098 standard; peptide; 43 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADV68479 standard; protein; 43 AA
                                                                                                                                                                                                                            30-DEC-2002; 2002US-00335207
                                                                                                                                                                                                                                                 30-DEC-2002; 2002US-00335207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                   (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRCGNPDVA 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         σ
                                                                                                                                                                                                                                                                                                                           WPI; 2004-506456/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 PRCGNPDVA
                                                                                                                                                                                                                                                                                                     Malik S, Quirk S;
                                                                                                                                                                                                                                                                   (MALI/) MALIK S. (QUIR/) QUIRK S.
                                                                                                                                                                                 US2004127421-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 43 AA;
                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-MAR-2005
                                                                                   23-SEP-2004
                                                                                                                                                                                                      01-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                     proenzyme
                                                              ADQ17098;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADV68479;
                   RESULT 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 21
                                                                                                                                                                                                                                                                                                                                                                                                                rhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADV68479
                               ADQ17098
                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MAKAKAKAKAKA
KAKAKAKAKAKA
KA
```

```
chondrosaccoma cells comprising an amount of a peptide and a chordrosaccoma cells comprising an amount of a peptide and a chordrosaccoma cells comprising an amount of a peptide and a compounds with a cytostatic activity acting as metalloprotease 1 inhibitors, metalloprotease 2 inhibitors, metalloprotease 3 inhibitors, contained and a compounds the compound of the composition of a metalloprotease 4 inhibitors, metalloprotease 5 inhibitors, contail opportease 6 inhibitors, metalloprotease 9 inhibitors, metalloprotease 10 inhibitors, metalloprotease 11 inhibitors, contail opportease 12 inhibitors, metalloprotease 13 inhibitors, contail opportease 13 inhibi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   matrix metalloproteinase inhibitor; antitumour; antiangiogenic; cardiant; vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic; vulnerary; cerebroprotective; antidiabetic; ophthalmological; tumour; dermatological; metastatic; non-metastatic; vascularised; heart disease; non-vascularised; surgical incision; chronic wound; stroke; angiogenesis; macular degeneration; diabetic retinopathy; cleavage region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A composition for decreasing and inhibiting the growth of chondrosarcoma cells, useful for treating chondrosarcomas and bone cancer, comprises a matrix metalloproteinase inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This invention relates to a novel composition for inhibiting growth of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human matrix metalloproteinase 2 cleavage region peptide SEQ ID NO:2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           matrix metalloproteinase; MMP; anticancer; wound healing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
0
metalloprotease 8 inhibitor; metalloprotease 9 inhibitor; metalloprotease 10 inhibitor; metalloprotease 11 inhibitor; metalloprotease 12 inhibitor; metalloprotease 13 inhibitor; metalloprotease inhibitor; metalloprotease inhibitor; metalloprotease inhibitor; bone tumor; sarcoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     h
Similarity 100.0%; Score 54; DB 9; Length 43;
9; Conservative 0; Mismatches 0: Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; SEQ ID NO 15; 50pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABP97124 standard; peptide; 44 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-JUN-2003; 2003US-00601059.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-JUN-2003; 2003US-00601059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24 PRCGNPDVA 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2005-047374/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVA
```

06-MAR-2003

```
The present invention relates to peptide inhibitors of metalloproteinases (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have epptide sequences related to the cleavage regions of the proenzyme forms of the MMPS. The peptide inhibitors are useful for stimulating cellular proliferation of fibroblasts or keratinocytes, promoting healthy skin development, treating wounds, preventing scarring, improving skin tone, reducing wrinkling and for simulating the development of smooth, healthy skin. The peptide inhibitors are useful as anti-aging and wound healing compounds. ABG76309-ABG76321 represent peptide inhibitors of MMPs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fibronectin; healthy skin; wrinkle; wound; vulnerary; dermatological; human; matrix metalloproteinase; MMP.
                                                                                                                                                                                                                                                                                              metalloproteinases, e.g. matrix metalloproteinase-2, useful for
stimulating cellular proliferation of fibroblasts or keratinocytes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human matrix metalloproteinase-2 (MMP2) cleavage region peptide #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 54; DB 6; Length 44; 100.0%; Pred. No. 0.16;
                                                                                                                                                                                                                                                                         Novel peptide inhibitor of proteinase activity of matrix
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                    (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                               Quirk S, Malik S, Villanueva JM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADQ17085 standard; peptide; 44 AA.
                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Page 16; 120pp; English.
                                        16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-DEC-2002; 2002US-00335207.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-DEC-2002; 2002US-00335207.
15-AUG-2002; 2002WO-US026198.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRCGNPDVA 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2004-506456/48.
                                                                                                                                                                                                                           WPI; 2003-289980/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
les 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Walik S, Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (MALI/) MALIK S.
(QUIR/) QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US2004127421-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 44 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-SEP-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADQ17085;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Loc
Matches
  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention describes an anti-anglogenic composition (I) for inhibiting expression of vascular endothelial growth factor (VEGF). (I) comprises an effective amount of a peptide inhibitor of matrix metalloprotesinase (WMP), where the peptide inhibitor of matrix antidiabetic, ophthalmological and dermatological activities. (I) has cytostatic, vulnerary, cardiant, cerebroprotective, antidiabetic, ophthalmological and dermatological activities. (I) can be used for inhibiting expression of VEGF, and so can be used for inhibiting growth of tumours and diminishing tumours size. The tumour can be metastatic, non-metastatic, vascularised, non-vascularised, hard or soft. (I) is also useful for treating injuries including wounds, surgical incisions, chronic wounds, heart diseases and stroke. (I) is also useful for treating disorders characterised by excessive anglogenesis e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          macular degeneration and diabetic retinopathy. The present sequence represents a human MMP cleavage region peptide, which is used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2; cleavage region; proenzyme form; cellular proliferation; fibroblast; keratinocyte; healthy skin development; wound healing; scarring; skin tone; wrinkle; anti-aging; vulnerary.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                     Anti-angiogenic composition comprising peptide inhibitor of matrix metalloproteinase, useful for decreasing the expression of vascular endothelial growth factor and treating cancers and tissue injuries.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 / Match 100.0%; Score 54; DB 6; Length 44; Local Similarity 100.0%; Pred. No. 0.16; os S. Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human matrix metalloproteinase (MMP) peptide inhibitor #2.
                                                                                                                                                                                                                                                                                              (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 17; Page 15; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABG76310 standard; protein; 44 AA.
                                                                                                                                                                                                16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                                                                                       15-AUG-2002; 2002WO-US026319.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRCGNPDVA 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-381408/36.
                                                                                                                                                                                                                                                                                                                                            Quirk S, Weart IF;
                                                              WO2003018748-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 44 AA;
                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-MAY-2003
```

ö

Gaps

. 0

Composition used for preventing and treating wrinkles and treating wounds comprises peptide having sequence related to matrix metalloproteinase

proenzyme

WO2003016520-A1

Ношо

24

셤 8

Query Match

Matches

ABG76310;

27-FEB-2003

```
genome-derived single exon nucleic acid probes useful for analyzing
metalloprotease 10 inhibitors, metalloprotease 11 inhibitors, metalloprotease 12 inhibitors, metalloprotease 13 inhibitors or metalloprotease 12 inhibitors. The composition is useful for decreasing and inhibiting the growth of chondrosarcoma cells which in turn inhibits growth of a bone tumor or diminishes a size of a bone tumor, useful for treating chondrosarcomas and bone cancers. The present sequence is that of a peptide derived from a human matrix metalloproteinase which may be used during the development of a composition of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        encoded by one
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention relates to single exon nucleic acid probes (SENP: see AA11315-AA157546). The present sequence is a peptide encoded by one such probe. The probes are useful for producing a microarray for predicting, measuring and displaying gene expression in samples derived from human placenta. The probes are useful for antenatal diagnosis of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peptide #4866 encoded by probe for measuring placental gene expression.
                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                       Similarity 100.0%; Score 54; DB 9; Length 44; Similarity 100.0%; Pred. No. 0.16; 9; Conservative 0; Mismatches 0: Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        h
Similarity 100.0%; Pred. No. 0.27;
9; Conservative 0; Mismatches n. Thakala
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Probe; microarray; human; placenta; antenatal diagnosis; genetic disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 27; SEQ ID NO 31098; 654pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ŗ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rank
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene expression in human placenta.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ą.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAM30829 standard; protein; 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (MOLE-) MOLECULAR DYNAMICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0180312P.
2000US-0207456P.
2000US-00608408.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chen W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-JAN-2001; 2001WO-US000663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-SEP-2000; 2000US-0234687P
27-SEP-2000; 2000US-0236359P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-AUG-2000; 2000US-00632366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      04-OCT-2000; 2000GB-00024263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         from human placenta. The
human genetic disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24 PRCGNPDVA 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hanzel DK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-488897/53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                             Sequence 44 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 75 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200157272-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                04-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-0CT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Penn SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAM30829,
                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human
                                                                                                                                                                                                                                                                                                                                                                                        Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAM30829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  88888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                   The present invention provides peptides and compositions containing such peptides that are useful as agents to maintain healthy skin and to promote the condition of the skin. The invention is useful for increasing the amount of fibronectin in tissue. The invention is also useful for encouraging the maintenance and development of healthy skin, preventing and treating wrinkles and for treating wounds. The invention acts as vulnerary and dermatological agents. The present sequence is human matrix metalloproceainase (MMP) cleavage region peptide. This sequence is used in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This invention relates to a novel composition for inhibiting growth of chodrosarcoma cells comprising an amount of a peptide and a pharmaceutical carrier. The invention may be useful for the production of compounds with a cytostatic activity acting as metalloprotease 1 inhibitors, metalloprotease 2 inhibitors, metalloprotease 3 inhibitors, metalloprotease 4 inhibitors, metalloprotease 7 inhibitors, metalloprotease 8 inhibitors, metalloprotease 8 inhibitors, metalloprotease 9 inhibitors,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A composition for decreasing and inhibiting the growth of chondrosarcoma cells, useful for treating chondrosarcomas and bone cancer, comprises a matrix metalloproteinase inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cell growth; pharmaceutical; cytostatic; metalloprotease 1 inhibitor; metalloprotease 2 inhibitor; metalloprotease 3 inhibitor; metalloprotease 3 inhibitor; metalloprotease 5 inhibitor; metalloprotease 6 inhibitor; metalloprotease 7 inhibitor; metalloprotease 8 inhibitor; metalloprotease 9 inhibitor; metalloprotease 10 inhibitor; metalloprotease 11 inhibitor; metalloprotease 12 inhibitor; metalloprotease 11 inhibitor; metalloprotease 12 inhibitor; metalloprotease 13 inhibitor; metalloprotease 14 inhibitor; metalloprotease 15 inhibitor; metalloprotease 15 inhibitor; metalloprotease 17 inhibitor; metalloprotease 18 inhibitor; metalloprotease 19 inhibitor; metalloprotease 10 inhibitor; meta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human matrix metalloproteinase-2 cleavage region polypeptide SeqID2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 54; DB 8; Length 44; 100.0%; Pred. No. 0.16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
      Example 1; SEQ ID NO 2; 60pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 16; SEQ ID NO 2; 50pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADV68466 standard; protein; 44 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-JUN-2003; 2003US-00601059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-JUN-2003; 2003US-00601059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2005-047374/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US2004259802-A1
                                                                                                                                                                                                                                                                                                                                                                                    Sequence 44 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YANG/) YANG S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-MAR-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-DEC-2004
```

ADV68466;

(QUIR/) Yang S,

ADV68466

ADV68466

ADV6

ADV7

ADV7

ADV6

24

RESULT 25

Query Match

&XCCCCCCCCXX

Matches

ઠે 셤

Best

(first entry)

19-AUG-2002

ABG40146;

```
The present invention relates to single exon nucleic acid probes for measuring human gene expression in a sample derived from human heart (see ABA21355-ABA41305). The present sequence is a protein encoded by one such probe. The probes may be used for predicting, measuring and displaying gene expression in samples derived from the human heart via microarrays. By measuring gene expression, the probes are useful for predicting, diagnosing, grading, staging, monitoring and prognosing diseases of the human heart and vascular system e.g. cardiovascular disease. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at fip.wipo.int/published_pct_sequences
                                                                                                                                                                                             Protein #4665 encoded by probe for measuring heart cell gene expression.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Single exon nucleic acid probes for analyzing gene expression in human
                                                                                                                                                                                                                           Human; gene expression; heart; microarray; vascular system; cardiovascular disease; hypertension; cardiac arrhythmia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 54; DB 4; Length 75; 100.0%; Pred. No. 0.27; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 15; SEQ ID NO 24436; 530pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rank DR;
                                                                                                     ABB22666 standard; protein; 75 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (MOLE-) MOLECULAR DYNAMICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Chen W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-00632366.
2000US-0234687P.
2000US-0236359P.
                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-00608408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-OCT-2000; 2000GB-00024263
                                                                                                                                                                                                                                                                                                                                                                              30-JAN-2001; 2001WO-US000666
                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ouery Match
Best Local Similarity 100...
9; Conservative
                                                                                                                                                                                                                                                          congenital heart disease.
                 49 PRCGNPDVA 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Penn SG, Hanzel DK,
1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-488899/53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 75 AA;
                                                                                                                                                                                                                                                                                                                  WO200157274-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                       03-AUG-2000; 2
21-SEP-2000; 2
27-SEP-2000; 2
                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                         26-MAY-2000;
                                                                                                                                                                 23-JAN-2002
                                                                                                                                                                                                                                                                                                                                                09-AUG-2001
                                                                                                                                   ABB22666;
ò
                         용
```

```
The invention relates to a spatiality-addressation in a sample derived from human lung comprising single exon nucleic acid probes for measuring gene expression in a sample derived from human lung comprising single exon nucleic acid sequences mentioned in the specification, or their complements or the 1239 open reading frames derived from the 12614 complements or the 1239 open reading frames derived from the 12614 complements or the human lung; measuring gene expression in a sample derived from human lung, comprising (a) contacting the array with a call expressed in the human lung; measuring gene expression in a sample derived from human lung comprising (a) contacting the array with a collection of detectably labeled nucleic acids derived from human lung comprising (a) contacting the array; identifying exons in a eukaryotic genome, comprising (a) array; identifying exons in a eukaryotic lung mRNM, to a single exon probe, algorithmically predicting specific hybridisation of detectably clabeled nucleic acids from enkaryote lung mRNM, to a single exon probe, having a fragment identical to the predicted exon, the probe is included in the above mentioned microarray; assigning exons to a single exon in several comprising one comprising (b) measuring the expression of each of the exons in the tissues and/or cell types using hybridisation to a single exon and corresponding a probe with the exon from genomic sequence by the microarrays having a probe with the exons should be assigned to a single gene, comprising one corresponding beautifying exons in a gene, particularly using human correct probes/open reading frames (ORF). The probes are used for gene expression lung derived mRNM and for the study of lung diseases such as asthma, lung cancer, chronic observative pulmonary fibresis, neurofibromatosis, disease (ILD), familial idiopathic pulmonary fibresis, neurofibromatosis,
                                                                                                            Human peptide encoded by genome-derived single exon probe SEQ ID 29811.
                                                                                                                                       Human; single exon probe; asthma; lung cancer; COPD; ILD; chronic obstructive pulmonary disease; interstitial lung disease; familial idiopathic pulmonary fibrosis; neurofibromatosis; tuberous sclerosis; Gaucher's disease; Niemann-Pick disease; Hermansky-Pudlak syndrome; asrcoidosis; pulmonary haemosiderosis; pulmonary haticoytosis; lymphangioleiomyomtosis; Karagener syndrome; pulmonary alveolar proteinosis; fibrocystic pulmonary dysplasia; primary ciliary dyskinesis; pulmonary hypertension; hyaline membrane disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        invention relates to a spatially-addressable set of single exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Spatially-addressable set of single exon nucleic acid probes, used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               measure gene expression in human lung samples.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 27; SEQ ID NO 29811; 634pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Chen W, Rank DR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (MOLE-) MOLECULAR DYNAMICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27-SEP-2000; 2000US-0236359P.
04-OCT-2000; 2000GB-00024263.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-JAN-2001; 2001WO-US000665.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-JUN-2000; 2000US-00608408
03-AUG-2000; 2000US-00632366.
21-SEP-2000; 2000US-0234687P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hanzel DK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-114183/15.
                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200186003-A2.
                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Penn SG,
```

ö

Gaps

ö

ABG40146 standard; peptide; 75 AA.

PRCGNPDVA 57

49

RESULT 28 ABG40146 ID ABG4

1 PRCGNPDVA 9

ઠે 셤 Pred. No. 0.29;

100.08;

Best Local Similarity

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matrix metalloprotease; inhibitor; tissue damage; angiogenesis; antibody; arthritis; tumour growth; granulomatous inflammatory condition; enzyme; metastasis; sarcoidosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This sequence represents a fragment of a human type IV matrix metalloprocease (MMP) zymogen (precursor protein). The invention relates to MMP inhibitor peptides which can be used to treat tissue damage caused by activated MMPs, e.g. for treating inappropriate angiogenesis, arthritis, tumour growth, invasion and metastasis and granulomatous inflammatory conditions such as sarcoidosis. Antibodies to the peptides can be used to detect the MMPs and can distinguish activated from latent enzyme. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PI field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    - used to inhibit enzyme in treating
            Pudlak syndrome, sarcoidosis, pulmonary haemosiderosis, pulmonary histiocytosis, lymphagioleicomyonicosis, pulmonary alveolar proteinosis, karagener syndrome, fibrocystic pulmonary dysplasia, primary ciliary dyskinesis, pulmonary hypertension and hyaline membrane disease. The present sequence is a peptide/protein encoded by a single exon probe of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
 tuberous sclerosis, Gaucher's disease, Niemann-Pick disease, Hermansky-
                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                       100.0%; Score 54; DB 5; Length 75; 100.0%; Pred. No. 0.27;
                                                                                                                                                                                                                                           0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fragment of human type IV matrix metalloprotease protein.
                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matrix metallo:proteinase peptide(s) - us
tissue damage caused by activated enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Liotta LA, Stetlerste W, Krutzsh H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Fig 13; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                               AAY07349 standard; protein; 80 AA.
                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            89US-00317407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              89US-00317407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90US-00488460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (USDC ) US SEC OF COMMERCE (USSH ) NAT INST OF HEALTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                         9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (revised)
                                                                                                                                                                                                                                                                                                           PRCGNPDVA 57
                                                                                                                                                                                                                                                                           1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1990-290458/38.
                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; AAX34392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 80 AA;
                                                                                                                                                                     Sequence 75 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAR-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAR-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-FEB-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            07-SEP-1990.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO9010228-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY07349;
                                                                                                                                                                                                                                                                                                           49
                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                               RESULT 29
                                                                                                                                                                                                                                                                                                                                                                             888888888888888
                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                             ઠે
```

DB 2; Length 80;

100.0%; Score 54;

Query Match

```
The present sequence represents amino acids 30-109 (the propeptide) of human, rat and mouse MMP-2 (EC 3.4.24.24). The three sequences are 100% identical. The specification describes a method of inhibiting tumour growth, inhibiting angiogenesis or inhibiting extracellular matrix destruction, comprising the administration of a polypeptide. The polypeptide amy be a matrix metalloproteinase (MMP-2) propeptide or an MMP-2 is also known as gelatinase A. The invention has cytostatic, antidiabetic, antiheumatic, ophthalmological, antiarthritic, antipsoriatic, ostoopathic, ophthalmological, antiarthritic, antipsoriatic, ostoopathic, on treating cancer and other conditions characterised by excessive neovascularisation, e.g. diabetic retinopathy, rheumatoid arthritis, ageneration and psoriasis; also diseases or disorders involving extracellular matrix destruction, e.g. osteoarthritis, periodontal disease and atherosclerosis. The polypeptides may be administered in combination with conventional anticancer treatments, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
ö
                                                                                                                                                                                                                                                                                                               Cytostatic; antidiabetic; ophthalmological; antirheumatic; antiarthritic; antipsoriatic; osteopathic; antinflammatory; tumour; antiarteriosclerotic; cancer; neovascularisation; diabetic retinopathy; rheumatoid arthritis; psoriasis; extracellular marix destruction; osteoarthritis; atherosclerosis; matrix metalloproteinase; MMP; angiogenesis; propeptide; gelatinase A; type IV collagenase; EC 3.4.24.24; rat; mouse; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Use of a polypeptide for inhibiting tumor growth, inhibiting angiogenesis and inhibiting extracellular matrix destruction, and treating e.g. cancer and rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
0
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 100.0%; Score 54; DB 5; Length 80; Best Local Similarity 100.0%; Pred. No. 0.29; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                Rat/mouse/human matrix metalloproteinase, residues 30-109.
Indels
;
0
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                surgery, radiation or chemotherapy
                                                                                                                                                                    AAG78385 standard; protein; 80 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Fig 1; 22pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-APR-2001; 2001WO-US040554.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-APR-2000; 2000US-0200115P
                                                                                                                                                                                                                                            18-JUN-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GEHO ) GEN HOSPITAL CORP.
9; Conservative
                                                                71 PRCGNPDVA 79
                                     σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-034402/04.
                                     1 PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rattus norvegicus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 80 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200180811-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Weissbach L;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-NOV-2001
Matches
                                                                                                                                 RESULT 30
                                                                                                                                                                                      ଚ
                                                                        g
```

용

ઠે

```
antidiabetic; ophthalmological; antirheumatic; antiarthritic;
                                             antipmoriatic; osteopathic; antiinflammatory; tumour; antiarterlosclerotic; cancer; neovascularisation; diabetic retinopathy; rheumatoid arthritis; psoriaais; extracellular matrix destruction; osteoarthritis; atherosclerosis; matrix metalloproteinase; MMP; angiogenesis; propeptide; recombinant protein; gelatinase A; type IV collagenase; EC 3.4.24.24; enzyme.

    10
    1abel= Polyhistidine_tag

                                                                                                                                 Location/Qualifiers
                        Recombinant human MMP-2 propeptide.
                                                                                                                                                                                                    19-APR-2001; 2001WO-US040554.
                                                                                                                                                                                                                   27-APR-2000; 2000US-0200115P.
       18-JUN-2002 (first entry)
                                                                                                                                                                                                                                    (GEHO ) GEN HOSPITAL CORP.
                                                                                                                                                                                                                                                                     WPI; 2002-034402/04.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                            N-PSDB; AAI64189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 92 AA;
                                                                                                                                                                  WO200180811-A2
                                                                                                         sapiens
                                                                                                                                                                                                                                                    Weissbach L;
                                         Cytostatic;
                                                                                                                                                                                   01-NOV-2001
                                                                                                                Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                  Key
Domain
                                                                                                         Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
ö
                                                                                                                                                                                                                                                                                                                                                                   Matrix metalloprotease; inhibitor; tissue damage; angiogenesis; antibody; arthritis; tumour growth; granulomatous inflammatory condition; enzyme; metastasis; sarcoidosis.
                                                                                                                                                                                                                                                                                                                             Matrix metallo:proteinase peptide(s) - used to inhibit enzyme in treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 54; DB 2; Length 85; 100.0%; Pred. No. 0.31;
                                                                                                                        Fragment of human Type IV matrix metalloprotease protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                      tissue damage caused by activated enzyme.
                                                                                                                                                                                                                                                                                             Krutzsh H;
                                                               AAY07338 standard; peptide; 85 AA.
                                                                                                                                                                                                                                                                                                                                                     Claim 4; Page 41; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                           89US-00317407.
                                                                                                                                                                                                                           89US-00317407
                                                                                                                                                                                                                                                                   (USDC ) US SEC OF COMMERCE. (USSH ) NAT INST OF HEALTH.
                                                                                                                                                                                                                                                                                            Liotta LA, Stetlerste W,
                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity 100
                PRCGNPDVA 79
                                                                                                (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRCGNPDVA 79
      1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  σ
                                                                                                                                                                                                                                                                                                             WPI; 1990-290458/38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 85 AA;
                                                                                                                                                                                                                           01-MAR-1989;
                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                            01-MAR-1989;
                                                                                                                                                                                                                                                    26-PEB-1990;
                                                                                               25-MAR-2003
16-JUL-1999
                                                                                                                                                                                          WO9010228-A.
                                                                                                                                                                                                           07-SEP-1990.
                                                                              AAY07338;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
```

```
The present sequence is that of a recombinant human MMP-2 propeptide with a N-terminal polyhistidine tag (EC 3.4.24.24). The propeptide is encoded by the nucleotide sequence given in AAI64189. The specification describes a method of inhibiting tumour growth, inhibiting anglogenesis or inhibiting extracellular matrix destruction, comprising the administration of a polypeptide. The polypeptide may be a matrix metalloproteinase (MMP-2) propeptide or an MMP-2 propeptide-like of polypeptide. MMP-2 propeptide or an MMP-2 propeptide-like or polypeptide. MMP-2 is also known as gelatinase A. The invention has cytostatic, antidiabetic, antirheumatic, ophthalmological, antiarthritic, antisheometric, antisheometric, ophthalmological, antiarthritic, antisheometric contemporate of a second for treating cancer and other conditions characterised by excessive neovascularisation, e.g. diabetic retinopathy, rheumatoid arthritis, age-related macular degeneration and psortasis; cheumatoid arthritis, age-related macular degeneration and psortasis; also diseases or disorders involving extracellular matrix destruction, e.g. osteoarthritis, periodontal disease and atherosclerosis. The polypeptides may be administered in combination with conventional anticancer treatments, e.g. surgery, radiation or chemotherapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
Use of a polypeptide for inhibiting tumor growth, inhibiting angiogenesis and inhibiting extracellular matrix destruction, and treating e.g. cancer and rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 54; DB 5; Length 92; 100.0%; Pred. No. 0.33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AEA20074 standard; protein; 194 AA.
                                                                                                                                                                                               Example; Page 9; 22pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
```

AAG78386 standard; protein; 92 AA.

RESULT 32
AAG78386
ID AAG78
XX
AC AAG78

셤

ઠ

AAG78386

ь д, AEA20074; Tang T Ghosh

```
peripheral neuropathy, Alzheimers disease, neuroprotective; noorropic, degeneration; parkinsons disease; autiparkinsonian; neurological disease; cerebrovascular ischemia, cerebroprotective; vasotropic; cardiovascular disease; autoimmune disease; immunosuppressive; immunosuppressive; immunosuppressive; immunosuppressive; immunosuppressive; immunosuppressive; immunosuppressive; immunosuppressive; infection; cancer;
                                                                                                                                                                                                                                vulnerary; CNS-gen.; gene therapy; diagnostic; forensic; mapping; DNA purification; procein purification; osteoarthritis; antiarthritic; osteopathic; musculoskeletal disease; osteoporosis; endocrine disease; periodontal disease; antiinflammatory; mouth disease; burns; injury;
                                                                                                                Novel human polypeptide SEQ ID NO 768.
     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cytostatic; neoplasm
11-AUG-2005
```

Homo sapiens.

WO2005049806-A2.

02-JUN-2005.

11-MAR-2004; 2004WO-US007412.

14-MAR-2003; 2003US-00389559.

(NUVE-) NUVELO INC.

Zhou P, Ma Y; Goodrich R, Chen R; Ren F, Wang D, Wang J, Wang ZW, Zhang J, Xue A, Asundi V, Zhao Q, Wehrman T, Weng G, Boyle B;

WPI; 2005-417730/42. N-PSDB; AEA19507 polynucleotide encoding a polypeptide with biological activity, ful for treating a disease or disorder, e.g. osteoarthritis, burns, and peripheral disease, stroke, autoimmune disorders, viral infection, or cancer.

Claim 20; SEQ ID NO 768; 500pp; English.

The invention describes a new isolated polymucleotide (I) encoding a polypeptide with biological activity comprising: a nucleotide sequence of sequence of SEQ ID NOS: 1-567 (fully defined); a nucleotide sequence that hybridizes to the sequence of (i) under stringent hybridization conditions; or a nucleotide sequence of (i) under stringent hybridization conditions; or a nucleotide sequence of (i). Also described are: a(n) (expression) vector comprising (I); a host cell genetically engineered to comprise (I) operatively, associated with a regulatory sequence that modulates expression of the polymucleotide in the host cell; an isolated polypeptide comprising a sequence of SEQ ID NOS: 568-1134 (fully defined), where the polypeptide of is: a polypeptide encoded by (I); or a polypeptide encoded by a composition comprising the polypeptide of (3); an ethod of carrier; an antibody directed against the polypeptide of (3); a method of carrier; an antibody directed against the polypeptide of (3); an encoded of producing the polypeptide of (3); and a carrier; an antibody directed against the polypeptide of (3); and a collection of polymucleotides, where the collection comprising of at collection of polymucleotides, where the collection comprising any of the sequences of SEQ ID NOS: 1-567. (I) is a polymucleotide with biological cativity, which comprises any of the amino acid sequence of SEQ ID NOS: 1-567. (I) is a polymucleotide with biological cativity, which comprises any of the amino acid sequence of SEQ ID NOS: 1-567. (I) sequences of data and products dependent on DNA and encode ageneric disorders other traits, in assessing biodiversity, and for producing many other composition and methods are useful for treating a disease or disorder. All sequences of sequences of data and products dependents on DNA and amino acid sequences. The composition and methods are useful for treating a disease, burns, osteoarthritis, periodontal disease, burns, osteoarthritis, periodontal disease, burns, osteoarthritis, periodontal disease, p

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence represents a polypeptide (II) with biological activity, which is encoded by an isolated polynucleotide sequence (I) from the present invention. Also described: (I) a vector comprising (I); (2) an expression vector comprising (I); (3) a host cell genetically engineered to comprise (I) which is operatively associated with a regulatory sequence that modulates expression of (I) in the host cell; (4) a polypeptide of (II) encoded by (II); (5) a composition comprising the polypeptide of (4) and a carrier; (6) an antibody directed against the polypeptide of (4); (7) detecting (I) or the polypeptide of (4) in a sample; (8) identifying a compound that binds to the polypeptide of (4); (9) producing the polypeptide of (4); and (10) a collection of polynucleotides comprising at least one of the polymoclectide sequences (I). The polymucleotides (I) can be used as hybridisation probes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  oligomers or primers, for chromosome or gene mapping, for the recombinant production of proteins, and for generating antisense DNA or RNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                         biological activity; genetic engineering; hybridisation probe; oligomer; primer; chromosome mapping; gene mapping; recombinant protein production;
autoimmune disorders, viral infection, or cancer. This is the amino acid sequence of a novel polypeptide of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New polynucleotides, useful as hybridization probes, oligomers or primers, for chromosome or gene mapping, for the recombinant production of proteins, and for generating antisense DNA or RNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                               Gaps
                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                         Score 54; DB 9; Length 194; Pred. No. 0.71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity 100.0%; Score 54; DB 7; Length 445; Similarity 100.0%; Pred. No. 1.6; 9; Conservative 0; Mismatches 0; Indels
                                                                                                                              0; Indels
                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Υ;
                                                                                                                                                                                                                                                                                                                                                                                                       Human polypeptide sequence SEQ ID NO:1954.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 20; SEQ ID NO 1954; 571pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Жa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Weng G,
                                                                                                                                                                                                                                                                                              ADF59546 standard; protein; 445 AA.
                                                                                       Query Match
Best Local Similarity 100.0%;
Matches 9; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09-AUG-2002; 2002WO-US025485.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09-AUG-2001; 2001US-0311261P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Wang Z,
                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                  65 PRCGNPDVA 73
                                                                                                                                                                  σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ouery Match
Best Local Similarity
Matches 9; Conserval
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI: 2003-876918/81.
                                                                                                                                                                1 PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fang YT, Yang Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB; ADF58546.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 445 AA;
                                                     Sequence 194 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO2003080795-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                     12-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-OCT-2003
                                                                                                                                                                                                                                                                                                                                  ADP59546;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   human.
                                                                                                                                                                                                                                                            RESULT 34
                                                                                                                                                                                                                                                                               ADF59546
 ន្តដូបូប
                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                a
```

σ

```
The present invention relates to human nucleic acid molecules that are specific to lung cells, lung tissue and/or the lung organ. These lung to specific nucleic acide may be naturally occurring conft, genomic DNA, RNA or a fragment, or a non-naturally occurring nucleic acid. Due to alternative splicing and transcriptional modification one lung-specific conference and another acid molecule encoding a protein sequence selected from wisolated nucleic acid molecule encoding a protein sequence selected from 83 (SEQ ID NO: 1-55) sequences, Described is a method of determining the presence of a lung specific nucleic acid or protein in a sample, and a cancer in a partient. Claimed is a vaccine comprising the polypeptide or the nucleic acid encoding the polypeptide. Determining the presence of a lung specific nucleic acid in a sample comprising the presence of a cancer in a partient. Claimed is a vaccine comprising the presence of a lung specific nucleic acid in a sample comprises contacting the sample of with a nucleic acid molecule above which will hybridize to a lung specific nucleic acid in a sample comprises contacting the sample of specific nucleic acid in a bove which will hybridize to a lung specific nucleic acid in a sample comprise of the nucleic acid molecule su immune response against the molecule or the polypeptide is useful for treating a patient with lung cancer, where the administration induces an immune response against the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New nucleic acid molecule from Homo sapiens, useful for identifying, diagnosing, monitoring, staging, imaging and treating a patient with lung cancer and non-cancerous diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                lung cancer cell expressing the nucleic acid molecule or polypeptide. The nucleic acid molecule and polypeptide are also useful for identifying,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        diagnosing, monitoring, staging, imaging and treating non-cancerous disease states in lung, identifying lung tissue, monitoring and identifying and/or designing (ant) agonists of the polypeptide, and for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene therapy. The present sequence is a human lung specifc protein.
                                                                                                                                                                                                                                                                                                                          DNA hybridization; diagnosis; diagnostic; lung tumor; vaccine; cytostatic; gene therapy; drug screening.
                                                                                                                                                                                                                                                                                    Human lung specifc protein, DEX0486_001.aa.1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 12; SEQ ID NO 56; 247pp; English.
                                                                                                                                                  AEA90447 standard; protein; 462 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-MAY-2004; 2004US-00852707.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22-MAY-2003; 2003US-0473941P.
                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.
                          100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Macina RA, Turner LR,
1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2005-457785/46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (MACI/) MACINA R A. (TURN/) TURNER L R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 462 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                      US2005142572-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (TURN/) TURNER
(SUNY/) SUN Y.
                                                                                                                                                                                                                                                                                                                                                                                              Ното варіепв.
                                                                                                                                                                                                                                         08-SEP-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-JUN-2005.
                                                                                                                                                                                               AEA90447;
                                                                                                                             용
    δ
```

```
The invention relates to isolated polymucleotide (I) and polypeptide (II) sequences. (I) is useful as hybridisation probes, polymerase chain creation (PRR) primers, oligomers, and for chromesome and gene mapping, and in recombinant production of (II). The polymucleotides are also used in diagnostics as expressed sequence tags for identifying expressed constant activity of (II) or to treat disease states involving (II). (II) is useful for generating antibodies against it, detecting or quantitating a cupplement. (II) and its binding partners are useful in medical imaging of sites expressing (II). (I) and (II) are useful for treating disorders (II) and its binding partners are useful in medical imaging of sites expressing (II). (I) and (II) are useful for treating disorders (IN) oplypeptide and polymucleotide sequences have applications in dispurpantions. Greensics, gene mapping, identification of mutations and to produce other types of data and products dependent on DNA and and an ocid sequences ABG00010-ABG30377 represent novel human diagnostic amino acid sequences of the invention. Note: The sequence data for this patent did not appear in the printed specification, but was obtained in celectronic format directly from WHDO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess
                                                                                                                                                                                                                                                            Human, chromosome mapping, gene mapping, gene therapy, forensic, food supplement, medical imaging, diagnostic, genetic disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.0%; Score 54; DB 4; Length 468; Best Local Similarity 100.0%; Pred. No. 1.7; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 20; SEQ ID NO 54360; 103pp; English.
                                                                                                                                                                                                                       Novel human diagnostic protein #23992.
                                                                                                       ABG24001 standard; protein; 468 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                30-MAR-2001; 2001WO-US008631.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31-MAR-2000; 2000US-00540217.
23-AUG-2000; 2000US-00649167.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tang YT;
                                                                                                                                                                                  (first entry)
100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Drmanac RT, Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-639362/73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; AAS88188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 468 AA;
                                                                                                                                                                                                                                                                                                                                                      WO200175067-A2.
                                                                                                                                                                                  18-FEB-2002
                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    biodiversity
                                                                                                                                                                                                                                                                                                                                                                                         11-OCT-2001
                                                                                                                                              ABG24001;
                                                                      RESULT 36
                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
```

ö

ö

Gaps

ö

0; Indels

0; Mismatches

100.0%; Score 54; DB 9; Length 462; 100.0%; Pred. No. 1.7;

AAP96143

```
The invention relates to novel diagnostic and therapeutic polymucleotides selected from one of the 2722 sequences defined in the specification. A polymucleotide of the invention may have a use in gene therapy. The human diagnostic and therapeutic polymucleotides (dithp) or polypeptides may be used to diagnose a particular condition, disease or disorder associated with human molecules, e.g. cell proliferative disorder, endocrine disorder, neurological disorder, developmental disorder, endocrine disorder, neurological disorders, gastrointestinal disorders, or infections caused by virus, bacteria, fungi or parasite. The dithp molecules may also be used in genetic mapping, in identifying individuals from minute biological samples, in detecting single nucleotide polymorphisms, as molecular weight markers, and for somatic or germline polymorphisms, as molecular weight markers, and for somatic or germline invention. Note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO at www.wipo.int/pct/en/sequences/listing.htm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Schmidt JP, Wright RJ, Bruns CM, Marjanovic MM, Shen F;
Harthshorne TA, Suchorolski MT, Altus CM, Pittes SJ, Bider LV;
Mooney EM, Delegeane AM, Panesar IS, Banville SC, Reddy TP;
Stevens KA, Blanchard JL, Panzer SR, Wang X, Au AP, Gerstin EH;
Stevens KA, Anderson SB, Rioux P, Shen EJ, Wu MC, Stuve LL;
Lagace RE, Spiro PA, Stewart EA, Wingrove J, Vitt UA, Kirton ES;
Xu Y, Kwong M, Policky JL, Hurwitz BL, Ma Y, Jackson JL, Gietzen D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New diagnostic and therapeutic polynucleotides and polypeptides, useful in diagnosing a condition, disease or disorder associated with human molecules, e.g. autoimmune or inflammatory disorders, in gene therapy or
                                                                                                                                                                                                                                                                  gene therapy; human diagnostic and therapeutic polynucleotide; dithp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 54; DB 8; Length 623; 100.0%; Pred. No. 2.3; cive 0; Mismatches 0; Indels
                                                                                                                                                                                                                          Human diagnostic and therapeutic pprotein SEQ ID NO:4306.
                                                                                                 ABM84057 standard; protein; 623 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 27; Page; 190pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Suarez CJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12-SEP-2002; 2002US-0410259P.
                                                                                                                                                                                                                                                                                                                                                                                                                               12-SEP-2003; 2003WO-US028227
                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity 100.
Matches 9; Conservative
86 PRCGNPDVA 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (INCY-) INCYTE CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2004-329368/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kwong M, P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; ACN42709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 623 AA;
                                                                                                                                                                                                                                                                                                                                                 WO2004023973-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        in gene mapping
                                                                                                                                                                                  18-NOV-2004
                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                         25-MAR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Patury S,
                                                                                                                                           ABM84057;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                            셤
```

```
The original source of the protein material was H-ras transformed human bronchial epithelial cells (TBB-1). The AA sequence was then used to develop oligonuclocide probes which were used to acreen a cDNA library of human skin fibroblast mRNA. The longest clone, pGBL 186.2, represented almost the full gelatinase mRNA sequence except the leader sequence encoding the first few AA's of the signal peptide. (Updated on 25-MAR-2003 to correct PF field.) (Updated on 25-MAR-2003 to correct PR field.)
                                                                                                                                                                                                                                                                                                                                                                                                                          DNA encoding human type IV collagenase (gelatinase) - for use in the treatment of hypertrophic scars, keloids and intervertebral disc disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human type IV collagenase; gelatinase; hypertrophic scars; keloids; intervertebral disc disease; extracellular matrix metalloprotease; bronchial epithelial cells; TBE-1 cells; pGell86.2; type II motif; fibonectin; collagen-binding domain.
                                                                                                      Sequence of human type IV collagenase (gelatinase) in pGEL 186.2.
                                                                                                                                  Hypertrophic scar; keloid; intervertebral disc disease; enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity 100.0%; Score 54; DB 1; Length 631; Similarity 100.0%; Pred. No. 2.3; 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human type IV collagenase (gelatinase).
AAP96143 standard; protein; 631 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAP91139 standard; protein; 631 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Pig 3; 36pp; English.
                                                                                                                                                                                                                                                          88GB-00820803
                                                                                                                                                                                                                                                                                    87US-00093421
                                                          (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                    (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |||||||||
71 PRCGNPDVA 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                              WPI; 1989-147011/20.
N-PSDB; AAN91700.
                                                                                                                                                                                                                                                                                                                                                Goldberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 631 AA;
                                                                                                                                                                                                                                                                                        04-SEP-1987;
                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                          02-SEP-1988;
                                                                                                                                                                                              GB2209526-A.
                                                          25-MAR-2003
09-MAY-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-DEC-1989
                                                                                                                                                                                                                                                                                                                                                  Eisen AZ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAP91139;
                             AAP96143;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 39
                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
```

ö

ô

Gaps

ö

100

1 PRCGNPDVA 9

```
01-MAR-1989;
                                                                                                                                                                                                                                                                                               01-MAR-1989;
                                                                                                                                                                                                                                                  JSN7317407-N
                                                                                                                                                                                                                                                                 21-AUG-1990.
                                                                                                                                                                                                                                                                                                                                                                                   detection.
                        Peptide
                                      Protein
        Peptide
                                                     Peptide
                                                                    Peptide
                                                                                   Peptide
                                                                                                  Peptide
                                                                                                                 Peptide
                                                                                                                               Peptide
                                                                                                                                               Peptide
                                                                                                                                                              Peptide
                                                                                                                                                                             Peptide
                                                                                                                                                                                            Peptide
                                                                                                                                                                                                             Peptide
                                                                                                                                                                                                                            Peptide
 ö
                                                                                                                                                                                    DNA encoding human type IV collagenase (gelatinase) - for use in the treatment of hypertrophic scars, keloids and intervertebral disc disease.
                                                                                                                                                                                                                        Human type IV collagenase (gelatinase). Protein source was H-ras determined human bronchial epithelial cells (TBE-1). The sequence was determined from clone pGel 186.2 which represents almost the full mRNA sequence. Feature 1 is the N-terminal domain, I; feature 2 is a middle domain, II, which is organised into 3 x 58 amino acid long head to tail repeats (features 4.5, and 6). These show homology to the type II motif collagen binding domain of fibronectin. Feature 3 is the C-terminal domain. The enzyme could be used in the treatment of hypertrophic scars, keloids, and intervertebral disc disease. See also AAN31700. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PR field.)
                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                  / Match 100.0%; Score 54; DB 1; Length 631; Local Similarity 100.0%; Pred. No. 2.3; nes 9; Conservative 0; Mismatches 0; Indels
               Location/Qualifiers
1. .192
                                                                                                                                                                                                                                                                                                                                                                                                                        AAR07969 standard; protein; 631 AA
                                                                                                                                                                                                            Claim 2; Fig 6; 36pp; English
                                                                                                        88GB-00820803
                                                                                                                        87US-00093421
                             193. 367
197. 254
255. 312
313. 368
368. 631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                      (UNIW ) UNIV WASHINGTON.
                                                                                                                                                      Bisen AZ, Goldberg GI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      (revised)
                                                                                                                                                                                                                                                                                                                                                                            (revised)
                                                                                                                                                                                                                                                                                                                                                                   1 PRCGNPDVA 9
                                                                                                                                                                     WPI; 1989-147011/20.
                                                                                                                                                                                                                                                                                                                     Sequence 631 AA;
                                                                                                                        04-SEP-1987;
                                                                                                        02-SEP-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      25-MAR-2003
                                                                           3B2209526-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-DEC-2001
16-JAN-1991
                                     Duplication
Duplication
                                                                                         17-MAY-1989
                                                   Duplication
                                                                                                                                                                                                                                                                                                                                                                                                                                      AAR07969;
                                                                                                                                                                                                                                                                                                                                    Query Match
                                                            Domain
                      Domain
                             Domain
                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                        셤
```

141. .150 /label= 10 299. .307 /label= 11 308. .318

/label= 12 344. .368

26. .42 // label= 3 // label= 4 // label= 5 67 . 89 // label= 7 // label= 7 69 . .75 // label= 8 // label= 8 // label= 8 // label= 8 // label= 8

19. .33 /label= label=

/label= 13 371. .386 /label= 14 372. .375 /label= 15 472. .491 /label= 16

89US-00317407. 89US-00317407

```
Type IV procollagenase was purified from human A2058 melanoma cells. The complete amino acid sequence was determined (see also Hoyhtya, M. et al., (1988) FBES Letters 233, 109-113). Based on this sequence, peptides were synthesised (see features) having homology with a histidine contg. domain at residues 371-386, a cysteine contg. domain at residues 200-370, the 80 at residues amino terminus or a region 159 residues from the carboxy terminus. These regions correspond to the domain of the enzyme involved in enzyme activation and interaction of the enzyme with the substrate. They can be used in the treatment of inappropriate angiogenesis, arthritis, tumour growth, invasion and metastasis and granulomatous inflammatory conditions such as sarciodisis. The peptides can be used to produce antibodies. Peptide 6, at conc. of 0, 1 mm inhibited 80% of the conzect the patent number format of US Government-owned NTIS submitted to correct the patent number format of US Government-owned NTIS applications to prevent clashes with ongoing US granted patent numbers. For further information please visit the Derwent web site at www.derwent.com/dwpi/updates/ntis us.html.) (Updated on 25-MAR-2003 to correct PA field.) (Updated on 25-MAR-2003 to correct PI field.)
                                                                                                                                                                                                                                                                                                                                                                                                  New type-IV collagenase peptide fragments - used for metallo-proteinase detection and inhibition and for producing antibodies for enzyme
                                                                                                                                                                          Stetlerste W, Krutzsch H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Fig 1; -pp; English.
(USSH ) US NAT CANCER INST
(USDC ) US SEC OF COMMERCE
                                                                                                                                                                                                                                                                                      WPI; 1990-290093/38.
                                                                                                                                                                               Liotta LA,
```

Type IV collagenase, peptide fragments, metalloproteinase detection, antibodies, metalloptroteinase inhibition, angiogenesis, arthritis, tumour growth, metastasis, granulomatous inflammatory conditions;

Complete type IV collagenase.

8

Location/Qualifiers

Homo sapiens

Key Peptide

sarciodosis.

```
Packaging material containing polypeptide antagonist of alphav, beta5 integrin - used for inhibition of angiogenesis, and for treating tumours,
                                                                                                                                Matrix metalloproteage-2; MMP-2; alpha-v-beta-5 antagonist; treatment; vitronectin receptor; inhibition; angiogenesis; integrin; tumour growth; restenosis; neovascularisation.
                                                                                                          Human mature matrix metalloprotease-2 (MMP-2) protein sequence.
                                                                                                                                                                                                                                                                                                                                        Cheresh DA, Friedlander M;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Fig 16; 117pp; English.
                                 AAW41226 standard; protein; 631 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                 inflammation, eye diseases etc.
                                                                                                                                                                                                                                                                              96US-0015869P.
96US-0018733P.
                                                                                                                                                                                                                                                       97WO-US009099
                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                (SCRI ) SCRIPPS RES INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                WPI; 1998-041758/04.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 631 AA;
                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                         W09745447-A1
                                                                                                                                                                                                                                                       30-MAY-1997;
                                                                                                                                                                                                                                                                              31-MAY-1996;
31-MAY-1996;
                                                                                   09-JUN-1998
                                                                                                                                                                                                                               04-DEC-1997
                                                                                                                                                                                                                                                                                                                                         Brooks P,
                                                           AAW41226;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 43
                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                               ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This sequence represents a human type IV matrix metalloprotease (MMP) zymogen (precursor protein). The invention relates to MMP inhibitor peptides which can be used to treat tissue damage caused by activated MMPs, e.g. for treating inappropriate angiogenesis, arthritis, tumour growth, invasion and metastasis and granulomatous inflammatory conditions such as sarcoidosis. Antibodies to the peptides can be used to detect the MMPs and can distinguish activated from latent enzyme. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PA field.) (Updated on 25-MAR-2003 to correct PA field.)
                                                                                                                                                                                                                                                                Matrix metalloproteame; inhibitor; tissue damage; angiogenesis; antibody; arthritis; tumour growth; granulomatous inflammatory condition; enzyme; metastamis; marcoidomis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matrix metallo:proteinase peptide(s) - used to inhibit enzyme in treating
                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                      100.0%; Score 54; DB 2; Length 631; 100.0%; Pred. No. 2.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 54; DB 2; Length 631;
100.0%; Pred. No. 2.3;
ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                /note= "designated in specification as U"
                                               0; Indels
                                                                                                                                                                                                                                           Human type IV matrix metalloprotease protein.
                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tissue damage caused by activated enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Liotta LA, Stetlerste W, Krutzsh H;
                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                        AAY07350 standard; protein; 631 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure, Fig 1; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                       89US-00317407
                                                                                                                                                                                                                                                                                                                                                                                                                                                              89US-00317407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         90US-00488460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (USDC ) US SEC OF COMMERCE. (USSH ) NAT INST OF HEALTH.
                                                                                                                                                                                                      (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 100.
                                              9; Conservative
                                                                                     PRCGNPDVA 79
                                                                      PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                   Misc-difference 452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1990-290458/38
                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 631 AA;
Sequence 631 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAR-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAR-1989;
26-FEB-1990;
                                                                                                                                                                                                      25-MAR-2003
16-JUL-1999
                                                                                                                                                                                                                                                                                                                 Ното варіепв
                                                                                                                                                                                                                                                                                                                                                                                        WO9010228-A
                                                                                                                                                                                                                                                                                                                                                                                                               07-SEP-1990
                                                                                                                                                                                AAY07350;
                                                                      Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Н
                                                                                                                                Matches
õ
                                                                                           셤
                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
```

```
ô
The present sequence represents the mature protein of human matrix metalloprotease-2 (MMP-2). Fragments of this protein (AAW41228-33) are able to act as alpha-v-beta-5 antagonists Alpha-v-beta-5 is a vitronectin receptor. Inhibitors of alpha-v-beta-5 can inhibit angiogenesis. The specification describes a novel labelled package that contains an inhibitor of angiogenesis i.e. an alpha-v-beta-5 antagonising polypeptide that binds to integrin alpha-v-beta-5 and includes a part of the C-terminal domain of MMP. The antagonists are used to inhibit angiogenesis in inflamed tissue, in solid tumours or metastases, and in wide range of ocular disorders (e.g. diabetic or other forms of retinopathy, neovascular glaucoma, or corneal transplants). They are particularly used to induce regression or to inhibit growth of tumours.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The alpha-v-beta-5 antagonists can also be used to treat restenosis caused by migration of smooth muscle cells following angioplasty and to reduce blood supply to selected tissues. The antagonists particularly inhibit neovascularisation where this is induced by cytokines, e.g. transforming growth factor alpha, epidermal growth factor or especially
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          h
Similarity 100.0%; Pred. No. 2.3;
9; Conservative 0; Mismatches A. T. 2.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADM48668 standard; protein; 631 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            vascular endothelial growth factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ||||||||||||||
PRCGNPDVA 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADM48668;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADM48668
ID ADM4
XX
AC ADM4
```

71 PRCGNPDVA 79

```
Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADT05997
   enzyme
                                                                                                                 Region
                                                          Region
                                                                                 Domain
                                                                                                                                         Region
                                                                                                                                                                Region
                                                                                                                                                                                     Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 45
  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SKKH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                 The present invention relates to novel synthetic oligopeptides effective in blocking cancer invasion and metastasis. The invention relates to matrix metalloproteinase-2 (MMP-2) peptides. The synthetic oligopeptides are useful as pharmaceutical compositions for blocking or treating cancer invasion and metastases in a human patient. In particular, they are useful for treating brain cancer, lung cancer, skin cancer or breast cancer. The oligopeptides are also useful as vaccines for preventing these cancers, enhancing immune response or raising antibodies for assays used to diagnose diseases involving matrix metalloproteinases or clinical monitoring of the progression or regression of disease. They are also useful in gene therapy. The present sequence is the human MMP-2 protein.
                                                                                                                                                                                                                                                                                                 New synthetic oligopeptide, useful for blocking or treating cancer invasion and metastases in a human patient, particularly as a vaccine for treating or preventing diagnosing brain cancer, lung cancer, skin cancer or breast cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     vitronectin receptor antagonist; neovascularisation; cancer; tumour; inflammation; rheumatoid arthritis; retina; diabetic retinopathy; restenosis; smooth muscle cell migration; angloplaery; antianglogenic; cytostatic; antiinflammatory; antiartheumatic; antitheumatic; ophthalmological; antidiabetic; vasotropic; muscular-gen.; peptidomimetic; matrix metalloprotease 2; MMP-2; gelatinase; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                      Cancer, metastasis, matrix metalloproteinase-2; MMP-2; vaccine; immune response; gene therapy; cytostatic; enzyme; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 54; DB 7; Length 631; 100.0%; Pred. No. 2.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Angiogenesis inhibitor; integrin alpha-V beta-3 antagonist,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                               Human matrix metalloproteinase-2 (MMP-2) protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human mature matrix metalloprotease (MMP-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADT05996 standard; protein; 631 AA
                                                                                                                                                                                                                                                         Rath M;
                                                                                                                                                                                                                                                                                                                                                               Example 1; Fig 1; 11pp; English.
                                                                                                                                                            23-JAN-2003; 2003US-00350258
                                                                                                                                                                                    23-JAN-2002; 2002US-0351317P.
            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                        Netke S, Niedzwiecki A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 100 nes 9; Conservative
                                                                                                                                                                                                                       NIEDZWIECKI A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRCGNPDVA 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                              WPI; 2003-897356/82.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 631 AA;
                                                                                                                                                                                                          (NETK/) NETKE S.
                                                                                                                US2003139345-A1
                                                                                                                                                                                                                   (NIED/) NIEDZWII
(RATH/) RATH M.
                                                                                          Homo sapiens
            03-JUN-2004
                                                                                                                                      24-JUL-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
```

```
The invention relates to a method of inhibiting angiogenesis in a tissue by the administration of a composition comprising an organic peptidomimetic antegonist of integrin alpha-V beta-3 (vitronectin containing it are useful for inhibiting angiogenesis in a variety of medical conditions. The antagonist may be used to induce the regression of solid tumours or solid tumour metastases; to inhibit the growth of solid tumours undergoing neovascularisation; to treat inflamed tissue in which neovascularisation is occurring (e.g., in rheumatoid arthritis); to treat neovascularisation in retinal tissue (e.g., in diabetic retinopathy); to treat restenosis that which occurs following angioplasty); and to reduce the blood supply to a tissue required to support new growth of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Administration of composition comprising organic peptidomimetic alpha-v beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tissue. The present sequence represents human mature matrix metalloprotease 2 (MMP-2, gelatinase) used in an example of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 54; DB 8; Length 631; 100.0%; Pred. No. 2.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                             439. .546
/note= "Corresponds to SEQ ID NO:20"
                                                                                                                                                                                                                                                                                439. .512 /note= "Corresponds to SEQ ID NO:19"
                                                                                                                                                                                                                                                                                                                                        510. .631
/note= "Corresponds to SEQ ID NO:21"
                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "Corresponds to SEQ ID NO:22"
                                                                                                              "Corresponds to SEQ ID NO:17"
                                                                                                                          139...631
/label = Hemopexin_domain
/note = Corresponds to SEQ ID NO:18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 2; Fig 7A-C; 184pp; English.
                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADT05997 standard; protein; 633 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-MAR-2004; 2004WO-US009321.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-MAR-2003; 2003US-00402212.
                                                                          /note= "C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (SCRI ) SCRIPPS RES INST.
                                                                                                                                                                                                                                                                                                                                                                                                 .631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cheresh DA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2004-737508/72.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
Matches 9; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 631 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO2004087057-A2.
Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Brooks PC,
```

```
(SMIK ) SMITHKLINE BEECHAM CORP. (SMIK ) SMITHKLINE BEECHAM PLC.
                                                                                                                                                                                                                                                                                                                                                                                                Romanic Arnold A, Barone FC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Fig 2; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity 100.0%;
9; Conservative C
                                                                                                                                                                                                                                                                                                          99US-0158787P
                                                                                                                                                                                                                                                                      11-OCT-2000; 2000WO-US027949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (revised)
(first entry)
21-JUN-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRCGNPDVA 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-290654/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; AAF30807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 644 AA;
                                                                                                                                                                                                WO200126671-A1.
                                                                                                                                                                                                                                                                                                          12-OCT-1999;
                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                    19-APR-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-MAR-2003
13-DEC-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAR06420;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 47
RXXXEEX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          by the administration of a composition comprising an organic peptidomimetic antagonist of integrin alpha-V beta-3 (vitromectin receptor). The integrin alpha-V beta-3 antagonist and compositions containing it are useful for inhibiting angiogenesis in a variety of medical conditions. The antagonist may be used to induce the regression of solid tumours or solid tumnour metastases; to inhibit the growth of solid tumours undergoing neovascularisation; to treat inflamed tissue in which neovascularisation is occurring (e.g., in rheumatoid arthritis); to treat neovascularisation in retinal tissue (e.g., in diabetic retinopathy); to treat restenosis in a tissue by inhibiting smooth muscle cell migration (such as that which occurs following angioplasty); and to reduce the blood supply to a tissue required to support new growth of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to a method of inhibiting angiogenesis in a tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Administration of composition comprising organic peptidomimetic alpha-v beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
                                                                Angiogenesis inhibitor; integrin alpha-V beta-3 antagonist; vitronectin receptor antagonist, neovascularisation; cancer; tumour; inflammation; rheumatoid archritis; retina; diabetic retinopathy; restenosis; smooth muscle cell migration; angioplasty; antiangiogenic; cytostatic; antiinflammatory; antiarthritic; antirheumatic; ophthalmological; antidiabetic; vasotropic; muscular-gen; peptidomimetic; matrix metalloprotease 2; MMP-2; gelatinase; mouse;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tissue. The present sequence represents mouse mature matrix metalloprotease 2 (MMP-2, gelatinase) used in an example of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 54; DB 8; Length 633; 100.0%; Pred. No. 2.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                              Mouse mature matrix metalloprotease (MMP-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                        /label = Hemopexin domain
                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 2; Fig 7A-C; 184pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAB20490 standard; protein; 644 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                     26-MAR-2004; 2004WO-US009321
                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-MAR-2003; 2003US-00402212
30-DEC-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (SCRI ) SCRIPPS RES INST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cheresh DA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRCGNPDVA 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2004-737508/72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 633 AA;
                                                                                                                                                                                                                                                                                                                                             WO2004087057-A2.
                                                                                                                                                                                                  murine; enzyme
                                                                                                                                                                                                                                                                                                                                                                                 14-OCT-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Brooks PC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAB20490
                                                                                                                                                                                                                                    Mus sp
                                                                                                                                                                                                                                                                                         Domain
```

```
The present sequence is trat or numban matrix metalopycoleinaer (wherein patin is a present sequence is trat or the present sequence is trat or degrading the extracellular matrix components of the basement membrane. The invention relates to methods for treating pain in a patient of degrading the invention relates to methods for treating pain in a patient by administration of an inhibitor of MMP-2 and MMP-9 (see AAB20491). The administration of an inhibitor of MMP-2 is suffering from a disease or tissue damage (claimed), where the patient is suffering from a disease or disorder selected from stroke, haemorrhage, reperfusion injury, cerebral ischaemia and cerebral infarction (claimed). The method is useful for treating a disease, disorder or nerve tissue damage selected from enhanced or exaggerated sensitivity to acute pain, burn pain, atypical facial pain, neuropathic pain, back pain, complex regional pain syndrome infaction, post-hermotherapy pain, post-operative pain, post-stroke pain, post-chemotherapy pain, post-operative pain, post-stroke pain, physiological pain, inflammatory pain, acute inflammatory traumatic nerve injury, and tolerance to narcotics or withdrawal from narcotics (claimed). MMP-2 polypeptides can also be used to screen for agonist or antagonist (inhibitor) compounds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Polypeptide for the treatment of pain and the reduction of tissue damage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence is that of human matrix metalloproteinase-2 (MMP-2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                             Matrix metalloproteinase-2; MMP-2; human; pain; analgesic; nerve tissue damage; stroke; haemorrhage; reperfusion injury; cerebral ischaemia; cerebral infarction; narcotic tolerance; narcotic withdrawal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 54; DB 4; Length 644; 100.0%; Pred. No. 2.4; cive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        comprises an inhibitor of human matrix metalloproteinase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bingham S;
Human matrix metalloproteinase-2 (MMP-2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAR06420 standard; protein; 660 AA.
```

ö

Best Loc Matches

ð 셤 RESULT 46 AAB20490

```
(first entry)
                                                                                                                                                                                                                                                                                       Local Similarity 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .660
        Huggins JP,
                                                                                                                                                                                                                                                                                                                                     100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                   0
                          2001-418351/44.
                                                                                                                                                                                                                                                                                                                   1 PRCGNPDVA
                                   N-PSDB; AAH28222
                                                                                                                                                                                                                                                                Seguence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200166766-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                     10-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13-SEP-2001
        Davies MJ,
                                                                                                                                                                                                                                                                                                                                                                                                   AAE10431;
                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Domain
                                                                      factor
                                                                                                                                                                                                                                                                                          Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                RESULT 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     é
                                                                                                                                                                                                                                                                                                                                                                         AAE10431
 셤
                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                       Recombinant human type IV collagenase - used in treatment of hypertrophic scars, keloids and intervertebral disc disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Growth factor; protein inhibitor; protease; damaged tissue; platelet-derived growth factor; PGF; fibroblast growth factor; FGF; connective tissue derived growth factor; CTGF; chrysalin; VEGF; keratinocyte-derived growth factor; KGF; epidermal growth factor; EGF; transforming growth factor-beta; TGF-beta; matrix metalloproteinase; MMP; granulocyte macrophage colony stimulating factor; GM-CSF; uPA; vascular endothelial growth factor; urokinase plasminogen activator;
                                                                                                                                                                                                                                   cDNA clone enables production of type IV collagenase, useful in catalysing cleavage of extracellular macrix macromolecules, and in treatment of hypertrophic scars, keloids and invertebral disc disease. (Updated on 25-MAR-2003 to correct PA field.)
                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                    ö
                 hypertrophic scars; keloids; intervertebral disc disease; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Amino acid sequence of matrix metalloproteinase gelatinase A.
                                                                                                                                                                                                                                                                                                 100.0%; Score 54; DB 2; Length 660; 100.0%; Pred. No. 2.4;
                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                   AAB84607 standard; protein; 660 AA.
Type IV collagenase cDNA product
                                                                                                                                                                                                                  Claim 3; Fig 9; 23pp; English
                                                                                                         89US-00352069.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99GB-00030768
                                                                                       89US-00352069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-DEC-2000; 2000WO-IB001935
                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                          Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                         (UNIW ) UNIV WASHINGTON
                                                                                                                                            Eisen AZ;
                                                                                                                                                                                                                                                                                                                                                100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                     1 PRCGNPDVA 9
                                                                                                                                                              WPI; 1990-245482/32.
                                                                                                                                                                      N-PSDB; AAQ05620.
                                                                                                                                                                                                                                                                                Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (PFIZ ) PFIZER
(PFIZ ) PFIZER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200149309-A2
                                                                                                                                            Soldberg GL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-DEC-1999;
                                                                                                        15-MAY-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens
                                  Homo sapiens
                                                                                       15-MAY-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                      05-SEP-2001
                                                    US4923818-A.
                                                                     08-MAY-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                     AAB84607;
                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ношо
                                                                                                                                                                                                                                                                                                                                                                                RESULT 48
                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                    셤
```

```
The specification describes a pharmaceutical composition, comprising a growth factor, an inhibitor agent, i.e. a protease. The inhibitor agent inhibitor agent, i.e. a protease. The inhibitor agent inhibites the action of at least one specific adverse protein, i.e. a protease, that is upregulated in a damaged tissue such as a wound environment. Growth factors which are included in the composition of the invention are platelet-derived growth factor (PDGF), fibroblast growth factor (FGF), connective tissue derived growth factor (FGF), connective dgrowth factor (KGF), transforming growth factor (FGF), opidermal growth factor (FGF), opidermal growth factor (FGF), ascular endothenlail growth factor (FGF), and chrysalin. Inhibitors which are included in the composition of the invention include inhibitors of urokinase-type plasminogen activator the treatment of chronic damaged tissue, i.e. wounds and dermal ulcers. The present sequence represents a human MMP-2, and is used to produce the composition of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human, matrix metalloproteinase; MMP-2; hair growth; antisense therapy; endopeptidase; skin cell; breast cancer; hair follicle; chromosome 11q22.
                                                                                                                                                                               Composition for the treatment of damaged tissue i.e. chronic wounds and dermal ulcers comprises an inhibitor agent i.e. a protease and a growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4; Length 660;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "Zinc and calcium binding domain"
Occleston NL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human matrix metalloprotinase-2 (MMP-2) protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /label= Cysteine switch domain 171. .195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 54; DB 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /label= Mature_MMP_2 protein
100. .106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . .27
label= Signal_peptide
Mcintosh FS,
                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 552; 572pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAE10431 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-MAR-2001; 2001WO-US007167.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-MAR-2000; 2000US-0187196P
```

24

us-10-601-059-12.rag

```
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABB90738
%XCCCCCCCCCCCCCCCCCCCCXXXXXXXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                            chromosome 1922. Matrix metalloproceinases are a family of zinc dependent endopeptidases that function extracellularly to degrade proteins typically found in the extracellular matrix. MMP-25 is expressed in skin cells of mammals, particularly in breast cells and hair fellicles. MMP-25 DNA is useful for identifying a nucleic acid molecule encoding all or part of MMP by hybridising MMP-25 to a nucleic acid sample and identifying a sequence that hybridises in the nucleic acid sample. The identification step involves performing polymerase chain reaction (PCR) to amplify the hybridiasing sequence. MMP-25 antibody is useful for identifying type 25 MMP. MMP-25 protein inhibitors may be used to modulate hair growth and breast cancer in a mammal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; matrix metalloproteinase-2; MMP-2; enzyme; thrombolytic; anticoagulant; cardiant; antiarteriosclerotic; cytostatic; osteopathic; antiinflammatory; antibacterial; virucide; fungicide; antipsoriatic; vulnerary; cerebroprotective; antianginal; ophthalmological; antiartherumatic; antiarthritic; antiulcer; vasotropic; nephrotropic; alpha-v-beta-3 integrin receptor; thrombosis; tumour; osteoporosis; infection; veterinary medicine; rheumatoid arthritis; Crohn's disease;
                                                                                                                                                      The present sequence is human matrix metalloproteinase (MMP)-2 protein used in the exemplification of the invention. MMP-25 DNA is located on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel isolated matrix metalloproteinase-25 nucleic acid molecule and proteins encoded by them whose inhibition is useful for modulation of hair growth in mammals.
                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 54; DB 4; Length 660; 100.0%; Pred. No. 2.4; cive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human matrix metalloproteinase 2 protein.
                                   Moss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABB79413 standard; protein; 660 AA.
                                                                                                                                 Example 2; Fig 3; 119pp; English
                                  Smith R,
DARWIN MOLECULAR CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /label= PEX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08-JUL-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          antimicrobial; antiseptic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .497
                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                             100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                      1 PRCGNPDVA 9
                                Fajardo M, Wang K,
          SCHATZMAN R.
                                                       WPI; 2001-582276/65
                                                                                                                                                                                                                                                                                                                              Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200220566-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Binding-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Binding-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3inding-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABB79413;
(DARW-)
          (SCHA/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 50
ABB79413
ઠ
```

14-MAR-2002.

```
The invention relates to peptides (ABB79414-ABB79426) derived from the C-
terminal fragment PEX of matrix metalloprotease-2 (MMP-2). Matrix MMP-2
C derivatives of formula X-Y-Z (I) and their salts and solvates are
described. X = H, 1-10C alkanoyl or peptide fragment consisting of 1-20
c described. X = H, 1-10C alkanoyl or peptide fragment consisting of 1-20
c maturally occurring amino acid residues; Y = peptide fragment selected
c from the sequence region 466-660 of human Pro-MMP-2; and Z = OH, NH 2, NH
c -1-10C alkyl NG-10C alkyl)_Z or peptide fragment consisting of 1-20
c naturally occurring amino acid residues. Primary amino groups are
c optionally protected conventionally. The peptides and MMP-2 derivatives
c optionally pathological processes involving interaction of ligands
c (specifically MMP-2) with the alpha-v-beta-3 integrin receptor,
especially pathological processes supported or propagated by
angiogenesis, thrombosis, cardiac infarction, coronary heart disease,
c angiogenesis, thrombosis, cardiac infarction, coronary heart disease,
c arteriosclerosis, tumours, osteoporosis, fibrosis, inflammation,
infections, psoriasis or wound healing deficiency. More generally the
peptides and MMP-2 derivatives are useful in human and veterinary
medicione for the treatment and/or prophylaxis of thrombosis, myocardial
infarction, apoplexy, angina pectoris, tumour diseases, osteolytic
c diseases (e.g. osteoporosis or hypercalcaemia), pathological angiogenic
c diseases (e.g. inflammation), ophthalmological diseases (e.g. diabetic
c rubectic glaucoma), rhematoin arthritis, ulcerative
c colitis, Crohm's disease, atherosclerosis, psoriasis, restenosis after
c angioplasty, viral, bacterial or fungal infections, acute renal failure
c or wound healing deficiency; as antimicrobial/antiseptic agents in
c operations involving biomaterials, implants, catherese or cardiac
c pacemakers); or as diagnostic agents or reagents. The present sequence is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                            New matrix metalloprotease-2 derivative peptides, are alpha-v-beta-3 integrin receptor inhibitors useful e.g. for treating thrombosis, cardiac infarction, tumors, osteoporosis, inflammation or infections.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; mouse; rat; TEM; tumour endothelial marker; NEM; PEM; cytostatic; normal endothelial marker; immunostimulant; antian marker; immunostimulant; antiangiogenic; tumour; neoangiogenesis; vascularised tumour; polycystic kidney disease; diabetes; retinopathy; rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 54; DB 5; Length 660;
Pred. No. 2.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human Tumour Endothelial Marker polypeptide SEQ ID NO 208.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                     Groth U, Zischinsky G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABB90738 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 11; 35pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
28-AUG-2001; 2001WO-EP009899.
                                                                     07-SEP-2000; 2000DE-01044325
                                                                                                                                                                                                                         Jonczyk A, Diefenbach B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-MAY-2002 (first entry)
                                                                                                                                               (MERE ) MERCK PATENT GMBH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                  WPI; 2002-329868/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       psoriasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABB90738;
```

```
The present invention relates to a method for diagnosing breast cancer in a subject suspected of having endometrial cancer. The method comprises in an endometrial sample suspected of being cancerous. The method comprises the nan endometrial sample suspected of being cancerous. The human genes of the invention are differentially expressed in breast tumours of characterised as high or low MAI (mitotic activity index). These sets of genes can be used to discriminate between high and low MAI breast tumours. The invention also provides DNA and protein microarrays for analysing the expression of the human genes and their products. The methods and arrays are useful for the diagnosis and prognosis of endometrial cancer, selecting and monitoring treatment regimes, and identification of compounds useful for the treatment of endometrial cancer. ANUG4311 represent the human proteins of the invention that are differentially expressed in breast cancer tissue
                                                                                                                                               Diagnosing breast cancer comprises determining expression of nucleic acid molecules or expression products that are differentially expressed in normal and malignant tissue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; endothelial cell; EC; tumour endothelial cell; TEM; NEM; Tumour endothelial marker; normal endothelial marker; PEM; pan-endothelial marker; polycystic kidney disease; psoriasis; diabetic retinopathy; rheumatoid arthritis; tumour angiogenesis; necangiogenesis; immune response; cytostatic; antidiabetic; ophthalmological; antirheumatic; antiarthritic; antipsoriatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 54; DB 5; Length 660; 100.0%; Pred. No. 2.4; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kinzler KW, Vogelstein B;
                                                                                                                                                                                                                                          Claim 37; Page 185-187; 219pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human tumour endothelial marker TEM 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABU54445 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Carson-Walter E, St Croix B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-APR-2002; 2002WO-US008253.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-APR-2001; 2001US-0282850P
06-FEB-2002; 2002US-0354262P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SNINGO NIND ( OCYU)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDVA 9
                                                                                 WPI; 2002-180084/23.
N-PSDB; ABK35568.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2003-093016/08.
N-PSDB; ABX72017.
                                            Mutter GL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
Matches 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 660 AA;
(BAAK/) BAAK J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200283874-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABU54445;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                         Baak J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABUS4445
ID ABUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
  용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to an isolated molecule comprising an antibody variable region which specifically binds to an extracellular domain of a ABB907143, ABB90715. The antibodies which bind to TEM proteins have cytostatic, immunostimulant and antiangiogenic activity. They are useful for inhibiting tumour growth, necangiogenesis in subjects bearing a vascularised tumour, polycystic kidney disease, diabetic retinopathy, rheumatoid arthritis and psoriasis. Human, mouse and rat TEM genes and the encoded proteins (ABB9075-ABB92141 and ABB90721-ABB90789) are disclosed, as are marker oligomucleotide sequences: tumour endothelial markers (MEM) ABL91904-ABL92041 and ABL92143-ABL92191; normal endothelial markers (MEM) ABL92042-ABL92044; and pan-endothelial markers (PEM) ABL91995-ABL92044.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; diagnosis of breast cancer; endometrial cancer; breast tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                               An isolated molecule comprising an antibody variable region which specifically binds to an extracellular domain of a tumor endothelial marker (TEM) protein, useful for inhibiting tumor growth.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Protein MMP2 differentially expressed in breast cancer tissue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 54; DB 5; Length 660; 100.0%; Pred. No. 2.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MAI; mitotīc activity index; cytostatic.
                                                                                                                                                                                                                                                                                      Vogelstein B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 54; Page 166-168; 331pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (BGHM ) BRIGHAM & WOMENS HOSPITAL INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU84348 standard; protein; 660 AA.
                                                                                                                                                    2000US-0222599P.
                                                                                                                                                                         11-AUG-2000; 2000US-0224360P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-JUL-2000; 2000US-0222093P.
                                                                                                        01-AUG-2001; 2001WO-US024031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27-JUL-2001; 2001WO-US023642
                                                                                                                                                                                                                                          (UYJO ) UNIV JOHNS HOPKINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                    St Croix B, Kinzler KW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                  WPI; 2002-291856/33.
                                                                                                                                                                                                                                                                                                                                                          N-PSDB; ABL92092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 660 AA;
                  WO200210217-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200210436-A2
                                                                                                                                                    02-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-FEB-2002
                                                            07-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAU84348;
```

Query Match Matches

셤 ઠ

ö

Gape

```
New purified human transmembrane protein, designated as tumor endothelial marker (TEM) 3, useful for detecting, diagnosing or treating tumors, polycystic kidney disease, diabetic retinopathy, rheumatoid arthritis or
                                                                                                                                                                                                        The present invention relates to a novel method for the isolation of endothelial cells (ECs), and the identification of genes expressed in normal and tumour ECs. Tumour endothelial marker (TEM), normal endothelial marker (NEW), and pun-endothelial marker (PEW) genes are identified in human ECs. The human EC marker proteins and the polynucleotide sequences encoding them are useful for detecting, diagnosing or treating tumours as well as polycystic kidney disease, diabetic retinopathy, rheumatoid arthritis, and psoriasis. They are also useful for inhibiting neoanglogenesis or tumour angiogenesis, for inducing an immune response to tumour endothelial cells in a patient, or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          identifying candidate drugs for treating tumours. The present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sequence represents a human TEM or NEM protein of the invention
                                                                                                                                                        Disclosure; Page 173-174; 374pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 660 AA;
                                                                                                           psoriasis.
```

9; Conservative Query Match Best Local Similarity Matches

100 PRCGNPDVA 108 1 PRCGNPDVA 9 셤

Human matrix metalloproteinase 2 protein SEQ ID NO:14. ABP97136 standard; protein; 660 AA. (first entry) 24-JUN-2003 ABP97136;

matrix metalloproteinase inhibitor; antitumour; antianglogenic; cardiant; vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic; vulnerary; cerebroprotective; antidiabetic; ophthalmological; tumour; dermatological; metastatic; non-metastatic; vascularised; heart disease; non-vascularised; surgical incision; chronic wound; stroke; angiogenesis; macular degeneration; diabetic retinopathy; cleavage region. Human; matrix metalloproteinase; MMP; anticancer; wound healing;

Homo sapiens

WO2003018748-A2

06-MAR-2003.

15-AUG-2002; 2002WO-US026319.

16-AUG-2001; 2001US-0312726P. 21-DEC-2001; 2001US-00032376. 21-MAY-2002; 2002US-00153185.

(KIMB) KIMBERLY-CLARK WORLDWIDE INC.

Quirk S, Weart IF;

WPI; 2003-381408/36

Anti-anglogenic composition comprising peptide inhibitor of matrix metalloproteinase, useful for decreasing the expression of vascular endothelial growth factor and treating cancers and tissue injuries.

Example 1; Page 43-44; 103pp; English

The present invention describes an anti-angiogenic composition (I) for inhibiting expression of vascular endothelial growth factor (VBGF). (I) comprises an effective amount of a peptide inhibitor of matrix metalloproteinase (MMP), where the peptide can inhibit the expression of VBGF. (I) has cytostatic, vulnerary, cardiant, cerebroprotective, antidabetic, ophthalmological and dermatological activities. (I) can be used for inhibiting expression of VBGF, and so can be used for inhibiting expression of VBGF, and so can be used for inhibiting growth of tumours and diminishing tumours size. The tumour can be metastatic, non-metastatic, vascularised, hard or soft. (I) is also useful for treating injuries including wounds, surgical incisions, chronic wounds, heart diseases and stroke. (I) is also useful for treating disorders characterised by excessive angiogenesis e.g. macular degeneration and diabetic retinopathy. The present sequence represents the human MMP-2 protein, which is used in the exemplification the present invention

Sequence 660 AA;

Gaps . 0 Score 54; DB 6; Length 660; Pred. No. 2.4; 0; Indels 0; Mismatches 100.0%; Query Match Best Local Similarity 100.. '... 9; Conservative σ 1 PRCGNPDVA ઠે

ö

100 PRCGNPDVA 108 g

ö

Gaps

ö

0; Indels

100.0%; Score 54; DB 6; Length 660; 100.0%; Pred. No. 2.4;

0; Mismatches

RESULT 55 AA016608

AA016608 standard; protein; 660 AA. AA016608;

08-MAY-2003 (first entry)

Human matrix metalloproteinase 2 (MMP2) gelatinase protein.

Human; enzyme; crystalline polypeptide; matrix metalloproteinase 9; MMP9; gelatinase; metalloproteinase mediated disease; drug design; arthritis; three-dimensional structure; MMP9 inhibitor; tumour growth; cancer metasteasis, osteoarthritis; atherosclerosis; restenosis; periodontitis; multiple sclerosis; glomerulonephritis; MMP9 modulator; matrix metalloproteinase 2.

Homo sapiens

WO2003002729-A1.

09-JAN-2003

24-JUN-2002; 2002WO-SE001266

27-JUN-2001; 2001SE-00002298

(ASTR) ASTRAZENECA AB.

Pauptit R, Rowsell S; Jepson H, Minshull C,

WPI; 2003-201502/19.

Novel crystalline form of a polypeptide corresponding to the catalytic domain of matrix metalloproteinase 9 protein, useful for selecting or designing chemical modulators which are used for treating diabetes, cancer, arthritis.

Disclosure, Fig 7; 227pp; English.

The invention comprises a crystalline form of a polypeptide corresponding to the catalytic domain of matrix metalloproteinase 9 (MMP9) protein - a gelatinase. The crystalline polypeptide of the invention is useful for treating a metalloproteinase mediated disease or condition in a warm-

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention relates to peptide inhibitors of metalloproteinases (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have peptide sequences related to the cleavage regions of the proenzyme forms of the MMPs. The peptide inhibitors are useful for stimulating cellular proliferation of fibroblasts or keratinocytes, promoting healthy skin development, treating wounds, preventing scarring, improving skin tone, reducing wrinkling and for simulating the development of smooth, healthy skin. The peptide inhibitors are useful as anti-aging and wound healing compounds. The present sequence represents human MMP-2
blooded animal. The crystalline polypeptide is also useful for determining the three-dimensional structure of the MMP9 catalytic domain to high resolution. The three-dimensional structure of the MMP9 catalytic domain is useful for rational drug design, and the atomic coordinates of the catalytic domain of MMP9 are useful for selecting or designing chemical modulators (preferally inhibitors) of MMP9. The crystalline polypeptide of the invention is useful in the treatment of a metalloproceinase mediated disease or condition, such as: tumour growth; metastasis in cancer; arthritis; osteoarthritis; atherosclerosis;
                                                                                                                                                                                restenosis; periodontitis; multiple sclerosis; glomerulonephritis; graft-versus-host disease; and non-insulin dependent disbetes. The present amino acid sequence represents a human matrix metalloproteinase 2 (MMP2)
                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2; cleavage region; proconzyme form; cellular proliferation; fibroblast; keratinocyte; healthy skin development; wound healing; scarring; skin tone; wrinkle; anti-aging; vulnerary.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel peptide inhibitor of proteinase activity of matrix metalloproteinases, e.g. matrix metalloproteinase-2, useful for stimulating cellular proliferation of fibroblasts or keratinocytes.
                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                         100.0%; Score 54; DB 6; Length 660;
100.0%; Pred. No. 2.4;
live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human matrix metalloproteinase-2 (MMP-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 1; Page 41-42; 120pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABG76322 standard; protein; 660 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Quirk S, Malik S, Villanueva JM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-AUG-2002; 2002WO-US026198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                             100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                       1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-289980/28
                                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                                                 Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2003016520-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-FEB-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABG76322;
                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ношо
                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
    $$$$$$$$$$$$$$$$$$$$$
                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
This invention relates to novel human genes and gene product which are implicated in certain disease states. Compounds which modulate the proteins of the invention may have cytostatic, antiinflammatory, computation of the invention may be useful for gene therapy. The invention cut may be useful for diagnosing or treating a hypoxia-regulated condition, cartythropolesis, or the biological response to hypoxia conditions including processes such as glycolysis, gluconeogenesis, glucose transportation, catecholamine synthesis, iron transport or nitric oxide transportation, catecholamine synthesis, iron transport or nitric oxide synthesis. The disease includes cancer, ischaemic conditions, reperfusion injury, retinopathy, neonatal stress, pre-eclampsia, atherosclerosis, inflammatory conditions or wound healing. The present sequence is that of a disease related protein of the invention.
                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          treating
                                                                                                                                                                                                                                                                                                                                                                                                                            antiarteriosclerotic; vulnerary; gene therapy; phypoxia-regulated condition; tumourigenesis; angiogenesis; apoptosis; inflammation; erythropoiesis; glycolyeis; gluconeogenesis; glucose transportation; catecholamine synthesis; iron transport; intric oxide synthesis; cancer; ischaemic condition; reperfusion injury; retinopathy; neonatal stress; pre-eclampsia; atherosclerosis; inflammatory condition; wound healing.
                                                                                                                                                                                                                                                                                                                                                                                                            human; disease state; cytostatic; antiinflammatory; ophthalmological;
                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New substantially purified polypeptide, useful for diagnosing or tree a hypoxia-regulated condition, such as cancer, ischemia, reperfusion injury, retinopathy, pre-eclampsia, atherosclerosis, inflammation, ox wound healing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ward NR, Harris RA, Naylor S, Mundy CR;
                                                                                         ö
                                                  6; Length 660;
                                                                                       0; Indels
                                                    Score 54; DB (
Pred. No. 2.4;
                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 25; SEQ ID NO 9; 424pp; English.
                                                                                                                                                                                                                                                                                                                                                                     Human disease related protein SeqID9.
                                                                                                                                                                                                                                                            Ė
                                                                                                                                                                                                                                                        ADD18578 standard; protein; 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (OXFO-) OXFORD BIOMEDICA UK LTD
                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23-AUG-2001; 2001GB-00020558.
05-OCT-2001; 2001GB-00024037.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23-AUG-2002; 2002WO-GB003892.
                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kingsman SM, White J,
                                                                                                                                                                 100 PRCGNPDVA 108
                                                                                                                            σ
                             Query Match
Best Local Similarity
'...a 9; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2003-290046/28.
N-PSDB; ADD18579.
                                                                                                                            1 PRCGNPDVA
               Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO2003018621-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                  15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-MAR-2003
                                                                                                                                                                                                                                                                                               ADD18578;
                                                                                                                                                                                                                       RESULT 57
                                                                                                                                                                                                                                           ADD18578
ž S
                                                                                                                                                                                                                                                            셤
                                                                                                                              ठ
```

```
The invention relates to a novel method for diagnosing and analysing autoimmunc disease or arthritides. The method comprises obtaining a patient sample containing mRNA, analysing gene expression using the mRNA that results in a gene expression signature of the mRNA, and using that care expression signature to diagnose or analyse the autoimmune disease or arthritides in the patient, where gene expression of at least 60% of the genes correlates with that of the gene expression of at least 60% of the genes correlates with that of the gene expression of at least 60% of the genes correlates with that of the gene expression of at least 60% of the genes for targeting in the treatment of rheumatoid arthritis; dentification of genes for targeting in the treatment of rheumatoid arthritis in a mammal array or gene chip, specific for rheumatoid arthritis; screening the array or gene chip, specific for rheumatoid arthritis; screening the efficacy of a candidate drug in vitro for the treatment of collagentinduced arthritis. The compositions of the invention have the following activities: immunosuppressive, antirheumatic, antiathitic, osteopathic, antigout, antiinflammatory, dermatological, and immunomodulatory. The methods and compositions of the present invention are useful for diagnosing and treating autoimmune disease or arthritides, such as freeward of arthritis, gout, juvenile rheumacoid arthritis, and an immenne disease caused by an infectious agent. This sequence represents a protein sequence relating to the genes used in the analysis and treatment
                                           ö
                                                                                                                                                                                                                                                                                                                                                                                        autoimmune disease; arthritide; gene expression analysis; rheumatoid arthritis; collagen-induced; immunosuppressive; antirheumatic; antiarthritic; osteopathic; antigout; antiinflammatory; dermatological; immunomodulatory; lupus; ankylosing spondylitis; Fibrositis; fibromyalgia; osteoarthritis; gout; juvenile rheumatoid arthritis; immune; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and
                                                                                                                                                                                                                                                                                                                                                      Human matrix metalloproteinase 2 preproprotein, gelatinase A, 72kD type.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Diagnosing and analyzing autoimmune disease using gene expression profiles and microarray technology, useful for diagnosing and treating rheumatoid arthritis, lupus, fibrositis, osteoarthritis, fibromyalgia a
                                        Gaps
                                           ö
  DB 7; Length 660;
                                        0; Indels
100.0%; Score 54; DB 7
100.0%; Pred. No. 2.4;
ive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHIL-) CHILDREN'S HOSPITAL MEDICAL CENT.
                                                                                                                                                                                                                             ADP65244 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page; 56pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31-OCT-2002; 2002WO-US035433.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31-OCT-2001; 2001US-0336220P.
                                                                                                                                                                                                                                                                                                               (first entry)
Query Match
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                         Hirsch R, Thorton SL,
                                                                                 σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-712740/67.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENBANK; NP_004521.
                                                                               1 PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO2003072827-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                               12-AUG-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-SEP-2003
                                                                                                                                                                                                                                                                      ADP65244;
                                                                                                                        100
                                                                                                                                                                                    RESULT 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gout
                                                                                                                                                                                                        셤
                                                                                 8
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Recruiting adult stem cells in an animal for treating aplastic anemia or multiple myeloma by administering a protease or its activator so that the stem cells can proliferate, self-renew, differentiate or mobilize to a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention relates to the use of proteases to recruit stem cells from the niches they normally occupy. The invention is useful for recruiting adult stem cells for treating bone marrow failure disorder such as aplastic anaemia and myeloproliferative disorder such as multiple myeloma. The invention is also useful in gene therapy. The present sequence is human matrix metalloproteinase (MMP) protein.
of autoimmune diseases or arthritides. Note: This sequence is not shown in the specification. It has been supplied in an electronic format from
                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                      Protease; stem cell; bone marrow failure disorder; aplastic anaemia; myeloproliferative disorder; multiple myeloma; gene therapy; human; matrix metalloproteinase; MMP; enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                         ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 54; DB 8; Length 660; 100.0%; Pred. No. 2.4; o; Mismatches 0; Indels
                                                                                Length 660
                                                                                                         Indels
                                                                                                         .;
0
                                                                               Score 54; DB 7;
Pred. No. 2.4;
                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                              Human matrix matalloproteinase 2 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; SEQ ID NO 3; 77pp; English.
                                                                                                                                                                                                                                ADN07697 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       봈
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hattori
                                                                                100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-MAY-2003; 2003US-00447315
                                                                                              100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-MAY-2002; 2002US-0383658P
                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                         9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9; Conservative
                                                                                                                                                              PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRCGNPDVA 108
                                                                                                                                    σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Heissig B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2004-328523/30.
                                                                                                                                      1 PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 9; Conserv
                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               υ. х
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENBANK; 11342666.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (RAFI/) RAFII S.
(HEIS/) HEISSIG B
(HATT/) HATTORI K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; ADN07698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 660 AA;
                                                     Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                         US2004071687-A1
                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                      01-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-APR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             target site
                                                                                                                                                               100
                                                                                                                                                                                                                                                            ADN07697;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rafii S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100
                                                                               Query Match
                                                                                              Best Loc
Matches
                            WIPO.
                                                                                                                                                                                                        RESULT
  ន្តដូបូបូប
                                                                                                                                                              셤
                                                                                                                                                                                                                                               셤
                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
```

```
The invention relates to the use of a protease with defined specificity for a target substrate for preparing a medicament for the treatment of a specific disease related to the target substrate. The invention also relates to a pharmaceutical or diagnostic composition comprising one or more enzymes in the use cited, optionally comprising pharmaceutically or diagnostically acceptable carriers, excipients and/or auxiliary agents, on method for cleaving a target substrate in vivo or in vitro comprising contacting the target substrate with a protease as cited in the use contacting the target substrate with a protease as cited in the use a protease with defined specificity for the specific target substrate. The protease with defined specificity for the specific target substrate. The protease with defined specificity for the specific target substrate. The protease with defined specificity for the specific target substrate. The protease bydrolyzes the target substrate and eliminates or reduces one or more biological activities, physico-chemical properties or pharmacological properties of the target protein and/or adds one or more biological activities, physico-chemical protease may be administered to treat immune disorders, inflammatory disorders, pharmacological diseases, dermatological diseases, gastrointestinal diseases, dermatological diseases, inflammatory disorders, diseases, hematological contactine diseases, inflammatory disorders, hematological contactine diseases, inflammatory disorders, hematological contactions and the diseases, inflammatory disorders, hematological contactions and the diseases, and administered to treat immune disorders, inflammatory disorders, hematological contactions and the diseases, dermatological diseases, dermatological diseases, hematological diseases, dermatological diseases, dermatol
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            diseases, cardiovascular diseases, metabolic disorder, cancers, hematological neurodegenerative diseases, growth disorders, respiratory diseases, genitourinary diseases, gynecological disorders, nutritional disorders and infections. This sequence represents a polypeptide hydrolysed by a protease used in the scope of the invention.
gynecological disorder; nutritional disorder; infection; cytostatic; gastrointestinal-gen.; antiinflammatory; antiasthmatic; analgesic; antiarthritic; osteopathic; antidiabetic; nephrotropic; cardiovascular-gen.; immunosupressive; respiratory-gen.; antipsoriatic; antiallergic; dermatological; enzyme; hydrolysis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Proteases with defined specificity for a target substrate useful treating a specific disease related to the target substrate, such cancer, asthma, diabetes, inflammatory disorders and psoriasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 54; DB 9; Length 660; 100.0%; Pred. No. 2.4; cive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scheidig A, Voetsmeier C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 43; SEQ ID NO 131; 250pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADV68478 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                    2003EP-00025851.
                                                                                                                                                                                                                                                     18-JUN-2004; 2004WO-EP051173
                                                                                                                                                                                                                                                                                                                                          2003EP-00025871
                                                                                                                                                                                                                                                                                                                                                              11-FEB-2004; 2004EP-00003058
                                                                                                                                                                                                                                                                                                                                                                                                        (DIRE-) DIREVO BIOTECH AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Haupts U, Koltermann A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2005-057985/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 660 AA;
                                                                                                                                                                    WO2004113522-A1
                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                 18-JUN-2003;
                                                                                                                                                                                                                                                                                                                    10-NOV-2003;
                                                                                                                                                                                                                                                                                                                                          11-NOV-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADV68478
ID ADV6
XX
      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     peptides that are useful as agents to maintain healthy skin and to promote the condition of the skin. The invention is useful for increasing the amount of fibronectin in tissue. The invention is also useful for encouraging the maintenance and development of healthy skin, preventing and treating wrinkles and for treating wounds. The invention acts as whorezary and dermatological agents. The present sequence is human matrix metalloproteinase-2 (MMP2) procein. This sequence is used in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Composition used for preventing and treating wrinkles and treating wounds comprises peptide having sequence related to matrix metalloproteinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Protease; immune disorder; inflammation; musculoskeletal disease; dermatological disease; gastrointestinal disease; endocrine disease; metabolic disorder; cancer; hematological disease; cardiovascular disease; cardiovascular disease; neurological disease; growth disorder; respiratory disease; genitourinary disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        present invention provides peptides and compositions containing such
                                                                                                                                                                                                                               Fibronectin, healthy skin; wrinkle; wound; vulnerary; dermatological; human; matrix metalloproteinase; MMP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 54; DB 8; Length 660; 100.0%; Pred. No. 2.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                        Human matrix metalloproteinase-2 (MMP2) protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 1; SEQ ID NO 14; 60pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Protease-hydrolysed polypeptide #78.
                                                        AD017097 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADV90301 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                         30-DEC-2002; 2002US-00335207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-DEC-2002; 2002US-00335207
                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity 100
9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2004-506456/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Malik S, Quirk S;
                                                                                                                                                                                                                                                                                                                                      US2004127421-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (MALI/) MALIK S. (QUIR/) QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 660 AA;
                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                              23-SEP-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-MAR-2005
                                                                                                                                                                                                                                                                                                                                                                                  01-JUL-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         proenzyme
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
                                                                                                      ADQ17097;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADV90301;
                     RESULT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADQ1709'
                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
```

such as

Kettling U;

ö

Gaps

```
Rat Protein P33436, SEQ ID NO 8791.
                                                                                                                                                                                                                   27-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADD46270
  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This invention relates to a novel composition for inhibiting growth of chondrosarcoma cells comprising an amount of a peptide and a chondrosarcoma cells comprising an amount of a peptide and a chondrosarcoma cells comprising an amount of a peptide and a chondrosarcoma cells comprise. The invention may be useful for the production of compounds with a cytostatic activity acting as metalloprotease 1 inhibitors, metalloprotease 5 inhibitors, metalloprotease 5 inhibitors, metalloprotease 6 inhibitors, metalloprotease 7 inhibitors, metalloprotease 10 inhibitors, metalloprotease 11 inhibitors, metalloprotease 11 inhibitors, metalloprotease 11 inhibitors, metalloprotease 12 inhibitors, metalloprotease 13 inhibitors, metalloprotease 13 inhibitors, metalloprotease 13 inhibitors, metalloprotease 13 inhibitors, camposition is useful for decreasing and inhibiting the growth of chondrosarcoma cells which in turn inhibits in thibiting the growth of chondrosarcoma enders. The composition is useful for treating chondrosarcomas and bone cancers. The present sequence is that of a human matrix metalloproteinse which may be used during the composition of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A composition for decreasing and inhibiting the growth of chondrosarcoma cells, useful for treating chondrosarcomas and bone cancer, comprises a matrix metalloproteinase inhibitor.
                                                                                                                               growth; pharmaceutical; cytostatic; metalloprotease 1 inhibitor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 54; DB 9; Length 660; 100.0%; Pred. No. 2.4; cive 0; Mismatches 0; Indels
                                                                                                                                               metalloprotease 2 inhibitor; metalloprotease 3 inhibitor; metalloprotease 4 inhibitor; metalloprotease 5 inhibitor; metalloprotease 6 inhibitor; metalloprotease 7 inhibitor; metalloprotease 8 inhibitor; metalloprotease 9 inhibitor; metalloprotease 10 inhibitor; metalloprotease 11 inhibitor; metalloprotease 12 inhibitor; metalloprotease 13 inhibitor; metalloprotease inhibitor; metalloprotease 13 inhibitor; metalloprotease 13 inhibitor; metalloprotease 14 inhibitor; metalloprotease 15 inhibitor; metalloprotease 15 inhibitor; metalloprotease 16 inhibitor; metalloprotease 17 inhibitor; metalloprotease 18 inhibitor; metalloprotease 19 inhibitor; metalloprotease 10 inhibitor; metalloprotease 1
                                                                                    Human matrix metalloproteinase-2 protein SegID14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 1; SEQ ID NO 14; 50pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADE62857 standard; protein; 662 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-JUN-2003; 2003US-00601059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-JUN-2003; 2003US-00601059
                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2005-047374/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (YANG/) YANG S.
(QUIR/) QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                      US2004259802-A1
                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                        10-MAR-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100
  ADV68478;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADE62857;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Yang S,
                                                                                                                               cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADE62857
ઠે
```

```
The invention discloses a composition comprising two or more isolated rat or human polymuclectides or a polymuclectide which represents a fragment, derivative or allelic variation of the mucleic acid sequence. Also claimed are a vector comprising the movel polymuclectide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a agent that increases or decreases the expression of the polymucleotide sequence that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying a compound which regulates the expression of a polymucleotide sequence which is differentially compound that regulates the activity of one or more of the compound that regulates the activity of one or more of the polymucleotides, a method for producing a pharmaceutical composition, a compound that regulates the activity of one or more of the cativity in an animal of one or more of the polymetides for identifying a compound useful in treating cativity in an animal of one or more of the polymetides given in the specification, a method for identifying a compound useful in treating copylymetides or their antibodies. The polymucleotide or the compound that polymucleotide or the compound that modulates its activity is useful for preparing a medicament for treating cativity (CCI) and spared nerve injury (SNI) in an animal (e.g. spinal segmental nerve injury (SNI)) in an animal (e.g. spinal segmental nerve injury (SNI)) in an animal (e.g. spinal segmented nerve injury (SNI)) in an animal (e.g. spinal segmented nerve injury (SNI)) in an animal (e.g. spinal segmented nerve injury (SNI)) in an animal (e.g. spinal segmented nerve injury (SNI)) in an animal (e.g. spinal segmented nerve injury (SNI)) in an animal (e.g. spinal segmented nerve injury (SNI)) in an animal (e.g. spinal segmented nerve injury (SNI)) in an animal spinal segmented nerve injury (SNI) in an enimal spinal segmented in the specification, but was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury; chronic constriction injury; CCI; spared nerve injury; SNI; Chung.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 54; DB 7; Length 662; Pred. No. 2.4; 0; Mismatches 0; Indel8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Costigan M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADD46270 standard; protein; 662 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Befort K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page; 1017pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-AUG-2001; 2001US-0312147P.
01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
                                                                                                                                                                                                                                                                                                                                                                                                                    14-AUG-2002; 2002WO-US025765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GEHO ) GEN HOSPITAL CORP. (FARB ) BAYER AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity 100.
es 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Woolf C, D'urso D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-268312/26
                                                                                                                                         Rattus norvegicus.
                                                                                                                                                                                                                               WO2003016475-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 662 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENBANK; P33436
```

Matrix metalloproteinase-2; MMP-2; chMMP-2; chicken; Anglogenesis; inhibitor; antigonist; integrin alpha-v beta-3; vitronectin receptor; rheumatoid arthriis; tumour; metastasis; diabetic retinopathy; macular degeneration; restenosis; therapy.

Chicken matrix metalloproteinase-2.

08-JUN-1998 (first entry)

AAW41111;

AAW41111 standard; protein; 663 AA.

RESULT 65

AAW41111

1. .26 /label= Sig_peptide Location/Qualifiers

97WO-US009158 96US-0015869P 96US-0018733P

30-MAY-1997;

31-MAY-1996; 31-MAY-1996;

WO9745137-A1

Peptide

Key

Gallus

04-DEC-1997

(SCRI) SCRIPPS RES INST

Brooks P, Cheresh DA;

WPI; 1998-032334/03. N-PSDB; AAV03995.

```
Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury; chronic constriction injury; CCI; spared nerve injury; SNI; Chung.
                                                                                                                                                                                                                                         New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
                                                                                                                                                                                                   Costigan M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             frp.wipo.int/pub/published_pct_sequences.
                                      Rat Protein P33436, SEQ ID NO 11945.
                                                                                                                                                                                                                                                                  Claim 1; Page; 1017pp; English.
                                                                                                                                                                                                   Befort K,
                                                                                                                                           14-AUG-2001; 2001US-0312147P.
01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
                                                                                                                            14-AUG-2002; 2002WO-US025765
                      (first entry)
                                                                                                                                                                          (GEHO ) GEN HOSPITAL CORP. (FARB ) BAYER AG.
                                                                                                                                                                                                  Woolf C, D'urso D,
                                                                                                                                                                                                                  WPI; 2003-268312/26.
                                                                             Rattus norvegicus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 662 AA;
                                                                                             WO2003016475-A2.
                                                                                                                                                                                                                         GENBANK; P33436
                       29-JAN-2004
                                                                                                            27-FEB-2003
       ADD46270;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
```

containing polypeptide antagonist of alphav, beta3 rinhibition of angiogenesis, and for treating tumours,

inflammation, eye diseases etc.

Packaging material c integrin - used for

```
This protein sequence comprises chicken matrix metalloproteinase-2 (chMMP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 163-167; 234pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
The invention discloses a composition comprising two or more isolated rat or human polymucleotides or a polymucleotide which represents a fragment, cor human polymucleotides or a polymucleotide which represents a fragment, contained are a vector comprising the novel polymucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially requires the expression of the polymucleotide sequence that increases or decreases the expression of the polymucleotide sequence that increases or decreases the expression of the polymucleotide sequence the expression of a polymucleotide sequence which is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the composition, a method for producing a pharmaceutical composition, a compound that regulates the activity of one or more of the polymeleotides, a method for producing a pharmaceutical composition, a method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more of polymeptides or their antibodies. The polymcleotides given in the specification, a method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more of polymeptides or their antibodies. The polymcleotide or the compound that conjury (CUI) and sparaed nerve injury (CNUMG), chronic constriction in units and sparaed nerve injury (CNUMG), chronic constriction the specification) which is differentially expressed during pain. Note: the specification that was other index form in form or mentification, the sequence date for this patent did not form made of the printed and patent did not form pare of the printed or presented is a rat protein did or the printed or presented is a rat protein did the printed or presented is a patent did not form made or did the printed or printed or presented in the protein did not form made or printed or printed or presented is 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ication, but was obtained in electronic form directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 54; DB 7; Length 662; 100.0%; Pred. No. 2.4;
```

```
Le invention relates to the discovery that angiogenesis is mediated by the specific vitronectin receptor alpha-v beta-3, and that inhibition of alpha-v beta-3, and that inhibition of alpha-v beta-3 include C-terminal tragments (see AAW41083-94) of human or chicken MMP-2. An MMP-2 fragment can be obtained by recombinant DNA methods, such as PCR amplification of the chWMP-2 coding region, cloning into e.g. pGRX-3X, and expression in B. coll as a tusion protein with angiogenesis in inflammed tissue (for treatment of arthritis or rheumatoid arthritis), in solid tumours or metastases (particularly to induce regression or inhibit tumour growth), and in ocular disorders such as diabbetic retinopathy and macular degeneration, as well as to treat restenosis (all claimed)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 54; DB 2; Length 663; 100.0%; Pred. No. 2.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADT05976 standard; protein; 663 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRCGNPDVA 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 663 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
```

ö

Gaps ö

0; Indels

0; Mismatches

Local Similarity 100. 1es 9; Conservative

Matches

PRCGNPDVA 108 1 PRCGNPDVA 9

100

셤 ઠ

Page 32

```
Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
8,599,599,599,599,58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to a method of inhibiting angiogenesis in a tissue by the administration of a composition comprising an organic peptidomimetic antagonist of integrin alpha-V beta-3 (vitronectin receptor). The integrin alpha-V beta-3 antagonist and compositions containing it are useful for inhibiting angiogenesis in a variety of
                                                                                                                                                                    vitronectin receptor antagonist; neovascularisation; cancer; tumour; inflammation; rheumatoid arthritis; retina; diabetic retinopathy; restenosis; smooth muscle cell migration; angioplasty; antiangiogenic; cytostatic; antiinflammatory; antiarthritic; antiinheumatic; ophthalmological; antidiabetic; vasotropic; muscular-gen.; peptidomimetic; matrix metalloprotease 2; MMP-2; progelatinase; chicken;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Administration of composition comprising organic peptidomimetic alpha-v beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note= "This section is Asp-Ser-His-Phe in the chicken
MMP-2 shown in figure 7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note = Corresponds to residues 445-637 of the mature
protein (see also SEQ ID NO:24)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "Corresponds to residues 549-637 of the mature protein (see SEQ ID NO:28)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mature
                                                                                                      Chicken matrix metalloprotease (MMP-2) version #1, SEQ ID NO:30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  471. .578
/note= "Corresponds to residues 445-552 of the
protein (see SBQ ID NO:26)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                to residues 516-637 of the NO:27)"
                                                                                                                                               Angiogenesis inhibitor; integrin alpha-V beta-3 antagonist;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            436. .663
/note= "Corresponds to residues 410-637 of opportion (see SEQ ID NO:23)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       445-518 of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       to residues
NO:25)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            471. .663
/label = Hemopexin_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 2; SEQ ID NO 30; 184pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                        . .26
|abel= Signal_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27. .663
/label= Mature_MMP-2
202. .205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "Corresponds
protein (see SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note= "Corresponds
protein (see SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-MAR-2004; 2004WO-US009321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-MAR-2003; 2003US-00402212
                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (SCRI ) SCRIPPS RES INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cheresh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2004-737508/72.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB; ADT05975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO2004087057-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Misc-difference
                                                                                                                                                                                                                                                                                                                                                 Gallus gallus.
Synthetic.
                                                           30-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Brooks PC,
                  ADT05976;
                                                                                                                                                                                                                                                                                                                                                                                                                                     Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Protein
                                                                                                                                                                                                                                                                                                          enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Region
```

```
ö
medical conditions. The antagonist may be used to induce the regression of solid tumnours or solid tumnour metastases; to inhibit the growth of solid tumnours undergoing neovascularisation; to treat inflamed tissue in which neovascularisation is occurring (e.g., in rheumatoid arthritis); to treat neovascularisation in retinal tissue (e.g., in diabetic retinopathy); to treat restenosis in a tissue by inhibiting smooth muscle cell migration (such as that which occurs following angioplasty); and to reduce the blood supply to a tissue required to support new growth of the tissue. The present sequence represents chicken matrix metalloprocease 2 (WMP-2, galatinase) used in an example of the invention. Note: The present sequence differs between residues 202-205 compared to the sequence also described as chicken MMP-2 shown in figure 7A-7C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Angiogenesis inhibitor; integrin alpha-V beta-3 antagonist; vurour; vitronectin receptor antagonist; neovascularisation; cancer; tumour; inflammation; rheumatoid arthrits; retina; diabetic retinopathy; restenosis; smooth muscle cell migration; angioplasty; antiangiogenic; cytostatic; antiinflammatory; antiarthritic; antirheumatic; ophthalmological; antidiabatic; vasotropic; muscular-gen.; peptidomimetic; matrix metalloprotease 2; MMP-2; progelatinase; chicken;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note= "This section is Ser-His-Phe-Asp in the chicken MMP-2 shown in SEQ ID NO:30"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     corresponds to residues 445-637 of the mature (see also SEQ ID NO:24)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note= "Corresponds to residues 410-637 of the mature protein (see SEQ ID NO:23)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the mature
                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "Corresponds to residues 445-552 of protein (see SEQ ID NO:26)"
                                                                                                                                                                                                                                                                                       DB 8; Length 663
                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chicken matrix metalloprotease (MMP-2) version #2.
                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                        ; Score 54; DB 8; Pred. No. 2.5; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /label = Hemopexin_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         note= "Encoded by GAT"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'note= "Encoded by TCC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'note= "Encoded by CAT"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'note= "Encoded by TTT"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1. .26
/label= Signal_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27. .663
/label= Mature_MMP-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note = Corresponds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADT05995 standard; protein; 663 AA.
                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 202. .205
                                                                                                                                                                                                                                                                                                                           9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein
                                                                                                                                                                                                                                                                                                                                                                                  o
                                                                                                                                                                                                                                                                                                                                                              PRCGNPDVA
                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                       Sequence 663 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gallus gallus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-DEC-2004
                                                                                                                                                                                                                    (ADT05995).
                                                                                                                                                                                                                                                                                                                                                              н
                                                                                                                                                                                                                                                                                                                                                                                             97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADT05995;
                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Region
                                                                                                                                                                                                                                                                                                           Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                    67
```

us-10-601-059-12.rag

```
The invention relates to a method of inhibiting angiogenesis in a tissue by the administration of a composition comprising an organic by the administration of a composition comprising an organic corresponse antagonist of integrin alpha-V beta-3 (vitronectin receptor). The integrin alpha-V beta-3 antagonist and compositions containing it are useful for inhibiting angiogenesis in a variety of medical conditions. The antagonist may be used to induce the regression of solid tumours or solid tumour metastases, to inhibit the growth of solid tumours undergoing neovascularisation; to treat inflamed tissue in which neovascularisation is occurring (e.g., in rheumatoid arthritis); to treat neovascularisation in a tissue (e.g., in diabetic retinopathy); to treat restenosis in a tissue by inhibiting smooth muscle call migration (such as that which occurs following angioplasty); and to reduce the blood supply to a tissue required to support new growth of the tissue. The present sequence represents chicken matrix metalloprotease 2 (WMP-2, gelatinase) used in an example of the invention. Note: The present sequence differs between residues 202-205 compared to the converse also described as chicken MMP-2 shown in the sequence listing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    biological activity; genetic engineering; hybridisation probe; oligomer; primer; chromosome mapping; gene mapping; recombinant protein production; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Administration of composition comprising organic peptidomimetic alpha-v beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
                protein (see SEQ ID NO:25)"
542. ..63
hote= "Corresponds to residues 516-637 of the mature protein (see SEQ ID NO:27)"
575. ..63
hote= "Corresponds to residues 549-637 of the mature protein (see SEQ ID NO:28)"
/note= "Corresponds to residues 445-518 of the mature protein (see SEQ ID NO:25)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 54; DB 8; Length 663; 100.0%; Pred. No. 2.5; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human contig polypeptide sequence SEQ ID NO:2921.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 2; Fig 7A-C; 184pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADF60554 standard; protein; 708 AA.
                                                                                                                                                                                                                                                                                             28-MAR-2003; 2003US-00402212.
                                                                                                                                                                                                                                                      26-MAR-2004; 2004WO-US009321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                    (SCRI ) SCRIPPS RES INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRCGNPDVA 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                          Brooks PC, Cheresh
                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2004-737508/72.
                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; ADT05994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 663 AA;
                                                                                                                                                                         WO2004087057-A2
                                                                                                                                                                                                               14-OCT-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADF60554;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                      Region
                                                                                               Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADF60554
ID ADF6
XX AC ADF(
XX I2-1
XX DE Hum
XX Bio
  셤
```

New polynucleotides, useful as hybridization probes, oligomers or primers, for chromosome or gene mapping, for the recombinant production of proteins, and for generating antisense DNA or RNA.

Ma Y;

o,

Weng

Z,

Wang

Fang YT, Yang Y, (HYSE-) HYSEQ INC.

WPI; 2003-876918/81.

N-PSDB; ADF60102

09-AUG-2002; 2002WO-US025485. 09-AUG-2001; 2001US-0311261P

WO2003080795-A2. Homo sapiens.

12-OCT-2003

```
The present invention describes isolated polynucleotide sequences (I), which encode polypeptides (II) with biological activity. Also described:

(I) a vector comprising (I); (2) an expression vector comprising (I); (3) a host cell genetically engineered to comprise (I) which is operatively associated with a regulatory sequence that modulates expression of (I) in the host cell; (4) a polypeptide (II) encoded by (I); (5) a composition comprising the polypeptide of (4) and a carrier; (6) an antibody directed against the polypeptide of (4); (7) detecting (I) or the polypeptide of (4) in a sample; (8) identifying a compound that binds to the polypeptide of (4) in a semple; (9) producing the polypeptide of (4); and (10) a collection of polynucleotides comprising at least one of the polynucleotide sequences (I). The polynucleotides (I) can be used as hybridisation probes, coligomers or primers, for thromosome or gene mapping, for the recombinant production of proteins, and for generating antisense DNA or RNA. The present sequence represents a human contig polypeptide sequence, which is used in an example from the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 periodontal disease; antiinflammatory; mouth disease; burns; injury; periodontal disease; antiinflammatory; mouth disease; burns; injury; peripheral neuropathy; Alaheimers disease; neuroprotective; nootropic; degeneration; parkinsons disease; antiparkinsonian; neurological disease; cerebrovascular ischemia; cerebroprotective; vasotropic; cardiovascular disease; autoimmune disease; immunosuppressive; immune disorder; viral infection; virucide; infection; cancer; cytostatic; neoplasm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  vulnerary; CNS-gen.; gene therapy; diagnostic; forensic; mapping;
DNA purification; protein purification; osteoarthritis; antiarthritic;
osteopathic; musculoskeletal disease; osteoporosis; endocrine disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 54; DB 7; Length 708; 100.0%; Pred. No. 2.6; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 3; SEQ ID NO 2921; 571pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel human polypeptide SEQ ID NO 1664.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AEA20970 standard; protein; 708 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11-AUG-2005 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity 100
nes 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRCGNPDVA 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 708 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AEA20970;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Loc
Matches
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
```

Human, chromosome mapping, gene mapping, gene therapy, forensic, food supplement, medical imaging, diagnostic, genetic disorder.

Novel human diagnostic protein #23990.

18-FEB-2002 (first entry)

```
The invention describes a new isolated polymucleotide (I) encoding a polypeptide with biological activity comprising: a nucleotide sequence of SEQ ID NOS: 1-567 (illy defined); a nucleotide sequence that hybridizes to the sequence of (i) under stringent hybridization conditions; or a nucleotide sequence of (i). Also described are: a(n) (expression) vector comprising (I); a host cell genetically engineered to comprise (I) operatively, associated with a regulatory sequence that modulates expression of the polynucleotide in the host cell; an isolated holypeptide comprising a sequence of SEQ ID NOS: SeB-1134 (fully defined), where the polypeptide of sequence of SEQ ID NOS: SeB-1134 (fully defined), where the polypeptide of sequence of SEQ ID NOS: SeB-1134 (fully defined), where the polypeptide of (3) and a sequence of SEQ ID NOS: 1-567, a method for identifying a compound that binds to the collection of sequence of (3) in a sample; a method for identifying a compound that binds to the collection of sequences of SEQ ID NOS: 1-567. (I) is a polymeptide of (3); and a collection of polymucleotides, where the collection comprising any of the sequences of SEQ ID NOS: 1-567. (I) is a polymucleotide comprising any of the sequences of SEQ ID NOS: 1-567. (I) is a polymucleotide comprising of at collection, or folymucleotides, where the collection comprising of sequences of SEQ ID NOS: 1-567. (I) is a polymucleotide comprising of sequences and methods are useful in dagnostics, forensic, and gene mapping, in identifying of mutations responsible for genetic disorders or types of data and products dependent on DNA and amino acid sequences. The composition and method are useful for treating a disease or disorder. C e.g. osteoporosis, osteoporthritis, periodontal disease, burns, CNS and periodomne disorders, viral inferior, or cancer. This is the amino acid sequence of a novel polypeptide of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       polynucleotide encoding a polypeptide with biological activity, ful for treating a disease or disorder, e.g. osteoarthritis, burns, and peripheral disease, stroke, autoimmune disorders, viral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Zhou P, Ma Y;
Goodrich R, Chen R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tang TY, Wang J, Wang ZW, Zhang J, Ren F,
Ghosh M, Xue A, Asundi V, Zhao Q, Wang D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 3; SEQ ID NO 1664; 500pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Weng G, Boyle B;
                                                                                                                                                                                                                                                                           11-MAR-2004; 2004WO-US007412.
                                                                                                                                                                                                                                                                                                                                                                       14-MAR-2003; 2003US-00389559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    infection, or cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2005-417730/42.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               (NUVE-) NUVELO INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 708 AA;
                                                                                  WO2005049806-A2
Homo sapiens.
                                                                                                                                                                               02-JUN-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wehrman T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New
```

New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess

Tang YT;

Drmanac RT, Liu C, WPI; 2001-639362/73

N-PSDB; AAS88186

(HYSE-) HYSEQ INC.

30-MAR-2001; 2001WO-US008631 31-MAR-2000; 2000US-00540217. 23-AUG-2000; 2000US-00649167.

WO200175067-A2

11-OCT-2001

Homo sapiens.

Human;

Claim 20; SEQ ID NO 54358; 103pp; English

biodiversity.

```
The invention relates to isolated polymucleotide (I) and polypeptide (II) caequences. (I) is useful as hybridisation probes, polymerase chain caedion (PCR) primers, oligomers, and for chromesome and gene mapping, and in recombinant production of (II). The polymucleotides are also used in diagnostics as expressed sequence tags for identifying expressed consists and in gene therapy techniques to restore normal cativity of (II) or to treat disease states involving (II). (II) is useful for generating antibodies against it, detecting or quantitating a cupylypeptide in fissue, as molecular weight markers and as a food supplement. (II) and its binding partners are useful in medical imaging of sites expressing (II). (I) and (II) are useful for treating disorders cupylypeptide and polymucleotide sequences have applications in diagnostics, forensics, gene mapping, identification of mutations creponable for genetic disorders or other traits to assess biodiversity and to produce other types of data and products dependent on DNA and amino acid sequences of the invention. Note: The sequence data for this patent did not appear in the printed specification, but was obtained in celectronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1330 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loca
Matches
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 54; DB 9; Length 708; 100.0%; Pred. No. 2.6; cive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 100...
9, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 PRCGNPDVA 9
```

```
Search completed: February 21, 2006, 18:13:21
Job time : 91.2807 secs
                                          318 PRCGNPDVA 326
1 PRCGNPDVA 9
```

ABG23999 standard; protein; 1330 AA.

RESULT 70 ABG23999

ABG23999

148 PRCGNPDVA 156

ö

Gaps

ö

100.0%; Score 54; DB 4; Length 1330; 100.0%; Pred. No. 4.9; ive 0; Mismatches 0; Indels (

Sequence 8131, Ap Sequence 16, Appl Sequence 12, Appl Sequence 13, Appl Sequence 6223, Appl Sequence 112, Appl Sequence 113, Appl Sequence 5, Appli Sequence 7, Appli US-09-949-016 B131 US-09-949-016 B131 US-08-71h-16 US-08-548-71h-16 US-08-548-71h-16 US-09-549-016-623 US-09-949-016-623 US-09-949-016-10875 US-09-949-016-10875 US-09-492-543-113 US-09-492-543-134 US-10-172-597-134 US-10-172-185-7

ALIGNMENTS

ö Sequence 12, Application US/10153185;
Patent No. 6906036;
GENERAL INPORMATION:
APPLICANT: Quirk, Stephen;
APPLICANT: Quirk, Schail
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds;
FILE REFERENCE: 1443.034US1;
CURRENT PELLICATION NUMBER: US/10/153,185;
CURRENT FILING DATE: 2002-08-13;
PRIOR APPLICATION NUMBER: US 10/032,376;
PRIOR APPLICATION NUMBER: US 60/312,726;
PRIOR PELING DATE: 2001-08-16;
NUMBER OF SEQ ID NOS: 20;
SEQ ID NO 12.
LENGTH: 9 Length 9; 100.0%; Score 54; DB 2; I ilarity 100.0%; Pred. No. 4.6e+05; Conservative 0; Mismatches 0; , ORGANISM: Homo sapiens US-10-153-185-12 Query Match Best Local Similarity Processive Property US-10-153-185-12 TYPE: PRT

PRCGNPDVA

ö

Gaps

PRCGNPDVA a US-10-13-185-11

US-10-13-185-11

US-10-13-185-11

Sequence 11, Application US/10153185

Patent No. 6906036

GENERAL INFORMATION:
APPLICANT: Quirk, Stephen
APPLICANT: Quirk, Stephen
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
FILE REPERENCE: 1443.034US1
CURRENT APPLICATION NUMBER: US/10/153,185
CURRENT FILING DATE: 2002-08-13

PRIOR FILING DATE: 2001-12-21
PRIOR FILING DATE: 2001-12-21

PRIOR FILING DATE: 2001-08-16

NUMBER OF SEQ ID NOS: 20

SOFTWARE: FASESEQ for Windows Version 4.0

GenCore version 5.1.7 Copyright (c) 1993 - 2006 Biocceleration Ltd.

OM protein - protein search, using sw model

Run on:

February 21, 2006, 08:00:29; Search time 20.6053 Seconds (without alignments) 36.111 Million cell updates/sec

US-10-601-059-12 54 1 PRCGNPDVA 9 Title: Perfect score:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

Sequence:

572060 segs, 82675679 residues Searched:

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Listing first 45 summaries Post-processing: Minimum Match 0% Maximum Match 100%

Database

lssued_Patents AA:*
1: /cgn2_6/ptodata/1/iaa/5_COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/6_COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/H_COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/PGTUS_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/RE_COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/RE_COMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description	Sequence 12, Appl	11,	15	7,7	17	17	18,	18,	19,	89,	6512			30,	463	167,	167,	17,	6,7	Sequence 4, Appli	41(9	Sequence 6, Appli	18,	27,	18,
ID	US-10-153-185-12	US-10-153-185-11	US-10-153-185-15	US-10-153-185-2	US-08-448-489-17	US-09-689-730-17	US-08-704-711A-18	US-09-521-220-18	US-09-391-104-19	US-09-917-254-89	US-09-949-016-6512	US-09-949-016-7937	US-10-153-185-14	US-09-194-468A-30	US-09-513-999C-4639	US-09-492-543-167	US-10-172-597-167	US-10-153-185-17	US-10-153-185-9	US-10-153-185-4	US-09-513-999C-4163	US-09-009-156-6	US-09-372-154-6	US-09-950-688-6	US-08-448-489-18	US-09-391-104-27	US-09-689-730-18
DB	2	~	N	7	~	~	~	~	~	~	~	~	~	~	~	~	~	~	~	7	~	7	~	N	~	7	0
* Query Match Length	6	19	43	44	631	631	099	099	099	099	099	099	099	663	136	6	6	43	54	99	135	264	264	264	267	267	267
% Query Match	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	87.0	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3
Score	54	54	54	54	54	54	54	54	54	54	54	54	54	54	47	45	45	45	45	45	45	45	45	45	45	45	45
Result No.	1,	<u>ا</u>	m	4	S	φ	7	σο	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27

us-10-601-059-12.rai

```
Sequence 17, Application US/09689730 Patent No. 6825024
                           24 PRCGNPDVA 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         71 PRCGNPDVA 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 71 PRCGNPDVA 79
     1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 7
US-08-704-711A-18
                                                                                            RESULT 5
US-08-448-489-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6
US-09-689-730-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-689-730-17
                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                            RESULT 3
US-10-153-185-15
is Sequence 15, Application US/10153185
is Patent No. 6906036
is GENERAL INFORMATION:
is APPLICANT: Quirk, Stephen
is APPLICANT: Quirk, Stephen
is TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
if TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
if TITLE OF INVENTION: ALLI-Aging and Wound Healing Compounds
if TILE REFERENCE: 1443.0340S1
is FILE REFERENCE: 1443.0340S1
is FILE REFERENCE: 2002-08-13
is PRIOR APPLICATION NUMBER: US 10/032,376
is PRIOR PILING DATE: 2001-12-21
is PRIOR PILING DATE: 2001-08-16
is NUMBER OF SEQ ID NOS: 20
is SOFTWARE: PRESEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 2, Application US/10153185

Patent No. 6906036

SENERAL INFORMATION:
TELEAL INFORMATION:
TILEA OF INVENTION: Anti-Aging and Wound Healing Compounds
TILE REFERENCE: 1443.034USI
CURRENT APPLICATION NUMBER: US/10/153,185

CURRENT FILING DATE: 2002-08-13

PRIOR APPLICATION NUMBER: US 10/032,376

PRIOR APPLICATION NUMBER: US 60/312,726

PRIOR PILING DATE: 2001-12-21

PRIOR PILING DATE: 2001-08-16

NUMBER OF SEQ ID NOS: 20

SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                            100.0%; Score 54; DB 2; Length 19; 100.0%; Pred. No. 0.0078;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 54; DB 2; Length 43; 100.0%; Pred. No. 0.018; cive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 100.0%; Score 54; DB 2; Length 44; Best Local Similarity 100.0%; Pred. No. 0.019; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                  0; Indels
                                                                                                                                    0; Mismatches
                                                                              Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.
Matches 9; Conservative
; LENGTH: 19
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-153-185-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
CORGANISM: Homo sapiens
US-10-153-185-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Homo sapiens
                                                                                                                                                                                           1 PRCGNPDVA 9
                                                                                                                                                                       1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 4
US-10-153-185-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 2
LENGTH: 44
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-153-185-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 15
LENGTH: 43
                                                                                                                                                                       δ
                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
```

```
Sequence 17, Application US/08448489

Parent No. 6184022

GENERAL INFORMATION:

APPLICANT: SEIKI, Motoharu

APPLICANT: SAINAGAWA, Akira

TITLE OF INVENTION: NOVEL WETALLOPROTEINASE AND ENCODING DNA THEREFOR

FILE REFERENCE: 55-290F

CURRENT APPLICATION NUMBER: US/08/448,489

CURRENT FILING DATE: 1995-06-07

NUMBER OF SEQ ID NOS: 19

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 17

LENGTH: 631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION

APPLICANT: SEIKI, MOCCharu

APPLICANT: SATO, Hiroshi

APPLICANT: SATO, Hiroshi

APPLICANT: SHINGGAMA, Akira

TILLE OF INVENTION: NOVEL METALLOPROTEINASE AND ENCODING DNA THEREFOR

TILLE REFERENCE: 55-290P

CURRENT APPLICATION NUMBER: US/09/689,730

CURRENT PILING DATE: 2000-10-13

PRIOR APPLICATION NUMBER: US/08/448,489

PRIOR PILING DATE: 1995-06-07

NUMBER OF SEQ ID NOS: 19

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 17

LINGTH: 631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
OTHER INFORMATION: Description of Unknown Organism: Known Member of
OTHER INFORMATION: Matrix Metalloproteinase Family
US-08-448-489-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OTHER INFORMATION: Description of Unknown Organism: Known Member of OTHER INFORMATION: Matrix Metalloproteinase Family
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 100.0%; Score 54; DB 2; Length 631; Best Local Similarity 100.0%; Pred. No. 0.29; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 100.0%; Score 54; DB 2; Length 631; Best Local Similarity 100.0%; Pred. No. 0.29; Matches 9; Conservative 0; Mismatches 0; Indels
```

ö

```
APPLICANT: Abbort Laboratories
APPLICANT: Falduto, Michael T.
APPLICANT: Falduto, Michael T.
APPLICANT: Falduto, Michael T.
APPLICANT: Morgan, Douglas W.
TITLE OF INVENTION: HUMAN MATRIX METALLOPROTEASE GENE,
TITLE OF INVENTION: PROFESSE SAME
TITLE OF INVENTION: PROFESSE SAME
TITLE OF INVENTION: POUGLAS SAME
TITLE OF INVENTION: OF USING SAME
TITLE OF INVENTION: OF USING SAME
CURRENT PAPLICATION NUMBER: US/09/391,104
CURRENT FILING DATE: 1999-09-07
PRIOR APPLICATION NUMBER: US 08/814,394
PRIOR FILING DATE: 1997-03-11
NUMBER OF SEQ ID NOS: 35
SOFTWARE: PARSEE OF WINDOWS Version 3.0
SEQ ID NOS: 35
SEQ ID NOS: 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 54; DB 2; Length 660; ilarity 100.0%; Pred. No. 0.3; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 54; DB 2; Length 660;
Pred. No. 0.3;
                                                                               COMPUTER: IEB PC Compatible
COMPATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/521,220
FILING DATE: 08-Mar-2000
CLASSIFICATION: <UNKnown>
21-OCT-1994
17-MAR-1994
                                                                                                                                                                                                                                                                                                                                     FILING DATE: CURRIOWID APPLICATION NUMBER: DE 4438838.1
FILING DATE: 21-OCT-1994
APPLICATION NUMBER: DE 4409663.1
FILING DATE: 17-MAR-1994
ATTORNEY/AGENT INFORMATION:
NAME: GRANADOS, PATIACIA D.
REGISTRATION NUMBER: 33,683
REFERENCE/DOCKET NUMBER: 26083/124
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE DESCRIPTION: SEQ ID NO: 18:
                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/704,711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 19, Application US/09391104
Patent No. 6399371
GENERAL INFORMATION:
                  ZIP: 20007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: (202)672-5300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGIH: 660 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (202)672-5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEX: 904136
INFORMATION FOR SEQ ID NO: 18:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
CRGANISM: Homo sapiens
US-09-391-104-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-391-104-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-521-220-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT b
US-09-521-220-18
US-09-521-220-18
Sequence 18, Application US/09521220
Patent No. 6399348
GENERAL INFORMATION:
HITLE OF INVENTION: DNA SEQUENCES FOR MATRIX
TITLE OF INVENTION: DNA SEQUENCES FOR MATRIX
METALLOPROTEASES, THEIR PRODUCTION AND USE
              Patent No. 6114159
GENERAL INFORMATION:
APPLICANT: WILL, HORST
APPLICANT: HINZMANN, Bernd
TITLE OF INVENTION: DNA SEQUENCES FOR MATRIX
TITLE OF INVENTION: METALLOPROTEASES, THEIR PRODUCTION AND USE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 54; DB 2; Length 660; 100.0%; Pred. No. 0.3; cive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                    COMPUTY: USA

ZIP: 20007-5109

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOGTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION BATA:
APPLICATION: 435
PTIING DATE: 20-NOV-1996
CLASSIFICATION: 435
PRICA PRICATION DATA:
APPLICATION NUMBER: WO PCT/DE95/00357
FILING DATE: 17-MAR-1995
FILING DATE: 21-OCT-1994
FILING DATE: 21-OCT-1994
PRILICATION NUMBER: DE 4438838.1
FILING DATE: 21-OCT-1994
PRILICATION NUMBER: DE 4409663.1
FILING DATE: 17-MAR-1994
ATTORNEY/AGENT INFORMATION:
REPERENCE/DOCKET NUMBER: 33,683
REPERENCE/DOCKET NUMBER: 26083/124
TELEPHONE: (202)672-5399
TELEFRANCE (202)672-5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 2. CORRESPONDENCE ADDRESS: CORRESPONDENCE ADDRESSE: Foley & Lardner STREET: 3000 K Street, N.W., Suite 500 CITY: Washington STATE: D.C.
                                                                                                                                                   NUMBER OF SEQUENCES: 22
CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner
STREET: 3000 K Street, N.W., Suite 500
Sequence 18, Application US/08704711A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEX: 904136
INFORMATION FOR SEQ ID NO: 18:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           l: 660 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100 PRCGNPDVA 108
                                                                                                                                                                                                                                            CITY: Washington STATE: D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS: Bi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-704-711A-18
                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
```

Gaps

g

```
Fatent No. 6812339
GENERAL INFORMATION.
APPLICATION VENTER, J. Craig et al.
FAPLICATION VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REPERBUCE: CLOO1307
CURRENT FILING DATE: 2000-04-14
CURRENT FILING DATE: 2000-10-20
FRIOR PLING DATE: 2000-10-20
FRIOR APPLICATION NUMBER: 60/231,768
FRIOR PLING DATE: 2000-10-03
FRIOR FILING DATE: 2000-10-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
US-09-194-468A-30
Sequence 30, Application US/09194468A
Sequence 30, Application US/09194468A
GENERAL INFORMATION:
APPLICANT: Brooks, Peter
TITLE OF INVENTION: METHODS AND COMPOSITIONS USEFUL FOR INHIBITION OF
TITLE OF INVENTION: ANGIOGENESIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 14, Application US/10153185

Sequence 14, Application US/10153185

Patent No. 6906036

GENERAL INFORMATION:

APPLICANT: Quirk, Stephen

APPLICANT: Malik, Schail

TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds

FILE REPERENCE: 1443.0344031

CURRENT APPLICATION NUMBER: US/10/153,185

CURRENT FILING DATE: 2002-08-13

PRIOR APPLICATION NUMBER: US 60/312,726

PRIOR APPLICATION NUMBER: US 60/312,726

PRIOR PILING DATE: 2001-08-16

NUMBER OF SEQ ID NOS: 20

SEQ ID NO 14

LENGTH: 660

MUNICHIER OF MINDOWS VETBION 4.0

SEQ ID NO 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 54; DB 2; Length 660; 100.0%; Pred. No. 0.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 660;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 100.0%; Score 54; DB 2; Best Local Similarity 100.0%; Pred. No. 0.3; Matches 9; Conservative 0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Mismatches
Sequence 7937, Application US/09949016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Homo sapiens
US-10-153-185-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-949-016-7937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-153-185-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             squence 6512, Application US/09949016
patent No. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
FILE REFERENCE: CLOOL307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR PELING DATE: 2000-10-03
PRIOR FILING DATE: 2000-00-06
NUMBER OF SEQ ID NOS: 207012
SOUTHARD: PRIOR FILING DATE: 2000-00-06
NUMBER OF SEQ ID NOS: 207012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: Prognostic Classification of Breast Cancer FILE REFERENCE: B0801/7224 (JRV)
CURRENT APPLICATION NUMBER: US/09/917,254
CURRENT FILING DATE: 2001-07-27
PRIOR APPLICATION NUMBER: US 60/222,093
PRIOR FILING DATE: 2000-07-28
NUMBER OF SEQ ID NOS: 102
SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match

100.0%; Score 54; DB 2; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.3;
Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 54; DB 2; Length 660; 100.0%; Pred. No. 0.3;
   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Indels
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                RESULT 10
US-09-917-254-89
Sequence 89, Application US/09917254
Patent No. 6703204
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 100.
....hes 9; Conservative
   9; Conservative
                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Mutter, George APPLICANT: Baak, Jan
                                                                                                   100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; TYPE: PRT
; ORGANISM: Homo Sapiens
US-09-917-254-89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 11
US-09-949-016-6512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JS-09-949-016-6512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 12
L US-09-949-016-7937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 6512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 89
Matches
```

ð 셤

Gaps ; ô

Gaps

ö

쉽

```
LOCATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                      ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 15
US-09-513-999C-4639
i Sequence 4639. Application US/09513999C
j Patent No. 6783961
i GENERAL INFORMATION:
i APPLICANT: Dunas Milne Edwards, J.B.
APPLICANT: Duclert, A.
i APPLICANT: Duclert, J.X.
i PAPLICANT: Glordano, J.X.
i PALEN NO. 6783961
i PALEN REPERENCE: 59.U82.REG
i CURRENT FILING DATE: 200-02-24
i PRIOR PILING DATE: 1999-02-26
i NUMBER OF SEQ ID NOS: 36681
i SOFTWARE: PALENTE.
i SEQ ID NO 4639
i LENGTH: 136
                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                 100.0%; Score 54; DB 2; Length 663; 100.0%; Pred. No. 0.31;
                                                                                                                                                                                                                                                                                                                                                                      0; Indels
PILE REPERENCE: MER0049S
CURRENT APPLICATION NUMBER: US/09/194,468A
CURRENT FILING DATE: 1999-03-23
PRIOR APPLICATION NUMBER: 60/018,773
PRIOR PILING DATE: 1996-05-31
PRIOR PILING DATE: 1996-05-31
PRIOR PILING DATE: 1996-05-31
PRIOR PILING DATE: 1997-05-30
NUMBER OF SEQ ID NOS: 45
SEQ ID NO 30
                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
PREATURE:
NAME/KEY: SIGNAL
LOCATION: -29.-1
OTHER INFORMATION: SEQ LCLIGGLLSHAAA/AP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION: 26
OTHER INFORMATION: Xaa=Lys or Asn
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OTHER INFORMATION: Xaa=Glu or Lys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
NAME/KEY: UNSURE
LOCATION: 22
OTHER INFORMATION: Xaa=Leu or Val
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INPORMATION: Xaa=Asp or Val
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OTHER INFORMATION: Xaa=Lys or Thi
                                                                                                                                                                                                                                                                                                                             Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                    ; TYPE: PRT
; ORGANISM: Gallus gallus
US-09-194-468A-30
                                                                                                                                                                                                                                                                                                                                                                                                                                97 PRCGNPDVA 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
NAME/KEY: UNSURE
LOCATION: 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
NAME/KEY: UNSURE
LOCATION: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
NAME/KEY: UNSURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: UNSURE
                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
```

13.55

```
PEATURE:
JAME/KEY: UNSURE
LOCATION: TARE
OTHER INFORMATION: Xaa=Ala or Cys or Asp or Phe or Gly or His or 1le or Leu or Asn o
OTHER INFORMATION: Tyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 87.0%; Score 47; DB 2; Length 136; Best Local Similarity 88.9%; Pred. No. 0.92; Matches 8; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                        LOCATION: 67
OTHER INFORMATION: Xaa=Ala or Pro or Ser or Thr
LOCATION: 27
OTHER INFORMATION: Xaa=Ile or Asn or Ser or Thr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: 80
OTHER INFORMATION: Xaa=Lys or Asn or Arg or Ser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Search completed: February 21, 2006, 08:02:40 Job time : 20.6053 Becs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    i LOCATION: 104j OTHER INFORMATION: Xaa=Ala or Pro
US-09-513-999C-4639
                                                                          LOCATION: 33
OTHER INFORMATION: Xaa=Lys or Asn
                                                                                                                                                                                                                                                        LOCATION: 66
OTHER INFORMATION: Xaa=Asp or Glu
                                                                                                                                                                                     OTHER INFORMATION: Xaa=Glu or Lys
                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: 75
OTHER INPORMATION: Xaa=Lys or
FEATURE:
NAME/KEY: UNSURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100 PRCGXPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
NAME/KEY: UNSURE
                                      PEATURE:
NAME/KEY: UNSURE
                                                                                                                                                                                                                                                                                                                      NAME/KEY: UNSURE
                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: UNSURE
                                                                                                                                            NAME/KEY: UNSURE
                                                                                                                                                                                                                                  NAME/KEY: UNSURE
```

This Page Blank Rusory

us-10-601-059-12.rapbm

GenCore version 5.1.7 Copyright (c) 1993 - 2006 Biocceleration Ltd.

OM protein - protein search, using sw model

; Search time 69.1579 Seconds (without alignments) 54.375 Million cell updates/sec Pebruary 21, 2006, 18:13:46 Run on:

US-10-601-059-12 54 1 PRCGNPDVA 9 Title: Perfect score: Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

1867569 segs, 417829326 residues Searched:

70 Total number of hits satisfying chosen parameters:

Post-processing: Minimum Match 100% Maximum Match 100% Listing first 500 summaries Minimum DB seq length: 0 Maximum DB seq length: 2000000000

/cgn2 6/ptodata/1/pubpaa/US07 PUBCOMB.pep:*
/cgn2 6/ptodata/1/pubpaa/US08 PUBCOMB.pep:*
/cgn2 6/ptodata/1/pubpaa/US09 PUBCOMB.pep:*
/cgn2 6/ptodata/1/pubpaa/US108 PUBCOMB.pep:*
/cgn2 6/ptodata/1/pubpaa/US108 PUBCOMB.pep:*
/cgn2 6/ptodata/1/pubpaa/US111_PUBCOMB.pep:* Published_Applications_AA_Main:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

					SUMMARIES		
Result No.	Score	% Query Match	Length DB	DB	, di	Description	
-	54	100.0	6	4	US-10-219-329-12	Sequence 12, App]	- 1dc
~	54	100.0	6	4	US-10-153-185-12	12,	ıα
m	54	100.0	6	4	US-10-219-561-12	12,	ία
4	54	100.0	6	4	US-10-032-376A-12	Sequence 12, Appl	.면
ഗ	54	100.0	σ	4	US-10-335-207-12	12,	ū
ø	54	100.0	6	ហ	US-10-601-059-12	_	ίď
4	. 54	100.0	σ	9	US-11-031-488-12	12,	ď
8	54	100.0	14	4	US-10-219-561-19	19,	ᇋ
σ	54	100.0	14	4	US-10-335-207-19	19,	덚
10	54	100.0	17	4	US-10-219-561-20	20,	꼅
11	54	100.0	17	4	US-10-335-207-20	20,	ď
12	54	100.0	19	4	US-10-219-329-11	11,	ď
13	54	100.0	19	4	US-10-153-185-11	11,	ď
14	54	100.0	19	4	US-10-219-561-11	Sequence 11, Appl	ď
15	54	100.0	19	4	US-10-032-376A-11	11,	<u>ل</u> و
16	54	100.0	19	4	US-10-335-207-11	11,	ď
11	54	100.0	19	S	US-10-601-059-11	Sequence 11, Appl	ď
18	54	100.0	19	9	US-11-031-488-11	11,	ď
19	54	100.0	43	4	US-10-219-329-15	15,	ď
50	54	100.0	43	4	US-10-153-185-15	15,	ď
21	54	100.0	43	4	US-10-219-561-15	15,	ď
22	54	100.0	43	4	US-10-032-376A-15	15,	ld.
23	54	100.0	43	4	US-10-335-207-15	15,	ď
24	54	100.0	43	ß	US-10-601-059-15	15,	ď
22	54	100.0	43	9	US-11-031-488-15	15,	ď
56	54	100.0	44	4	US-10-219-329-2	7	ij
27	54	100.0	44	4	US-10-153-185-2	Sequence 2, Appli	ij

ALIGNMENTS

US-10-219-329-12

| S-210-219-329-12
| S-210-219-329-12
| S-210-219-329-12
| Publication No. US20030096757A1
| GENERAL INFORMATION:
| GENERAL INFORMATION:
| APPLICANT: Quirk, Stephen
| APPLICANT: Quirk, Stephen
| TITLE OF INVENTION: Anti-Cencer and Wound Healing Compounds
| TITLE OF INVENTION: Anti-Cencer and Wound Healing Compounds
| TURRENT APPLICATION NUMBER: US/10/219,329
| CURRENT FILING DATE: 2002-08-15
| PRIOR APPLICATION NUMBER: US 60/312,726
| PRIOR APPLICATION NUMBER: US 60/312,726
| NUMBER OF SEQ ID NOS: 23
| SOFTWARE: FastSEQ for Windows Version 4.0
| INVARIANCE | SEG | TYPE: PRT ORGANISM: Homo sapiens

Score 54; DB 4; Length 9; Pred. No. 1.7e+06;

100.0%;

Query Match Best Local Similarity

US-10-219-329-12

```
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 PRCGNPDVA 9
                      RESULT 4
US-10-032-376A-12
                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-032-376A-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-335-207-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-601-059-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JS-10-335-207-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
    .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  us-tu-day Application US/10219561
; Sequence 12, Application US/10219561
; Publication No. US20030166567A1
; GENERAL INFORMATION:
    APPLICANT: Quirk, Schein
; APPLICANT: Quirk, Schein
; APPLICANT: Quirk, Schein
; APPLICANT: Willanueva, Julie M.
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REFERENCE: 1443.008052
; CURRENT APPLICATION NUMBER: US/10/219,561
; PRIOR FILING DATE: 2002-08-15
; PRIOR FILING DATE: 2001-12-21
; PRIOR FILING DATE: 2001-08-16
; SOFTWARE: REALEST FOR WINDOWS VETSION 4.0
; SEQ ID NO:2: 21
; SEQ ID NO:2: 21
; SEQ ID NO:2: 21
                                                                                                                                                                                                                                                      APPLICANT: Quirk, Stephen
APPLICANT: Quirk, Schail
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
FILE REFERENCE: 1443.034051
CURRENT APPLICATION NUMBER: US/10/153,185
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US 10/032,376
PRIOR APPLICATION NUMBER: US 60/312,726
PRIOR APPLICATION NUMBER: US 60/312,726
PRIOR RILING DATE: 2001-08-16
PRIOR PILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 20
SOFTWARE: FRAESC for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 54; DB 4; Length 9; 100.0%; Pred. No. 1.7e+06; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 54; DB 4; Length 9; 100.0%; Pred. No. 1.7e+06; tive 0; Mismatches 0; Indels
  0; Indels
0; Mismatches
                                                                                                                                              RESULT 2
US-10-153-185-12
Sequence 12, Application US/10153185
Publication No. US20030148959A1
GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-561-12
                                          1 PRCGNPDVA 9
                                                                                 1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-219-561-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-153-185-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 12
LENGTH: 9
Matches
                                          ઠે
                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
```

```
ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
Sequence 12, Application US/10032376A;
Publication No. US20040127420A1;
GENERAL INFORMATION:
APPLICAT: Quirk, Steven;
ITTLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing;
FILE REFERENCE: 1443.008US1;
CURRENT APPLICATION NUMBER: US/10/032,376A;
CURRENT FILING DATE: 2001-12-21;
PRIOR APPLICATION NUMBER: 60/312,726;
PRIOR FILING DATE: 2001-08-16;
NUMBER OF SEQ ID NOS: 20
SOFTWARE: FatisEQ for Windows Version 4.0;
STOID NO 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 54; DB 4; Length 9; 100.0%; Pred. No. 1.7e+06; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Yang, Shu-Ping
APPLICANT: Quirk, Stephen
APPLICANT: Quirk, Stephen
TITLE OF INVENTION: Anti-Chrondrosarcoma Compounds
FILE REFERENCE: 1443.064US1
CURRENT APPLICATION NUMBER: US/10/601,059
CURRENT FILING DATE: 2003-06-20
PRIOR APPLICATION NUMBER: US 10/335,207
PRIOR PLING DATE: 2002-12-30
PRIOR APPLICATION NUMBER: US 10/219,329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Malik, Sohail
APPLICANT: Malik, Schail
TITLE OF INVENTION: Method to Increase Fibronectin
FILE REPERENCE: 1443.047US1
CURRENT APPLICATION NUMBER: US/10/335,207
NUMBER OF SEQ ID NOS: 21
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 54; DB 4;
100.0%; Pred. No. 1.7e+06;
Live 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 12, Application US/10335207
Publication No. US20040127421A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 12, Application US/10601059
Publication No. US20040259802A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 100.
Matches 9; Conservative
```

```
Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; LENGTH: 14
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-335-207-19
                                                                                                                                                                                                TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                              5 PRCGNPDVA 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5 PRCGNPDVA 13
                                                                                                                                                                                                                                                                                                                                                                       1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 PRCGNPDVA 9
                                                                                                                                                                                                                                          US-10-219-561-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-335-207-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-219-561-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gape
                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNALL INFOGRATION:

APPLICANT: Guirk, Schail
APPLICANT: Malik, Schail
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
FILE REPERENCE: 1443.034051
CURRENT APPLICATION NUMBER: US/11/031,488
CURRENT FILING DATE: 2005-01-07
FRIOR PPLING DATE: 2002-05-21
PRIOR FILING DATE: 2002-05-21
PRIOR PPLING DATE: 2001-12-21
PRIOR PPLING DATE: 2001-12-21
PRIOR FILING DATE: 2001-12-21
PRIOR FILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 20
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 19, Application US/10219561
Publication No. US20030166567A1
GENERAL INFORMATION
APPLICANT: Guirk, Stephen
APPLICANT: Wilk, Sobail
APPLICANT: Willanueva, Julie M.
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
FILE REFERENCE: 1443.008US2
CURRENT FILING DATE: 2002-08-15
PRIOR APPLICATION NUMBER: US/10/219,561
                                                                                                                                                                                                                                                                                                                                                                       Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 54; DB 6; Length 9; 100.0%; Pred. No. 1.7e+06;
                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                  Query Match 100.0%; Score 54; DB 5; I Best Local Similarity 100.0%; Pred. No. 1.7e+06; Matches 9; Conservative 0; Mismatches 0;
PRIOR FILING DATE: 2002-08-15
PRIOR APPLICATION NUMBER: PCT/US02/26319
PRIOR FILING DATE: 2002-08-15
PRIOR APPLICATION NUMBER: US 10/153,185
PRIOR FILING DATE: 2002-05-21
PRIOR APPLICATION NUMBER: US 10/032,376
PRIOR PILING DATE: 2001-12-21
PRIOR PLING DATE: 2001-08-16
PRIOR PILING DATE: 2001-08-16
PRIOR PILING DATE: 2001-08-16
PRIOR PILING DATE: 2001-08-16
PRIOR FILING DATE: 2001-08-16
PRIOR PILING DATE: 2001-08-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; Sequence 12, Application US/11031488; Publication No. US20050239710A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 100.
Matches 9, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRCGNPDVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -10-219-561-19
                                                                                                                                                                                                                                                                                                                          US-10-601-059-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-11-031-488-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-11-031-488-12
                                                                                                                                                                                                                                      SEQ ID NO 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
```

a ò

```
Sequence 11, Application US/10032376A; Publication No. US20040127420A1; Publication No. US20040127420A1; GENERAL INFORMATION:
APPLICANT: Quirk, Steven; APPLICANT: Quirk, Steven; TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 11, Application US/10219561

Sequence 11, Application US/10219561

SERERAL INFORMATION:
SAPLICANT: Quirk, Stephen
APPLICANT: Quirk, Stephen
APPLICANT: Malik, Sohail
FILE REPERENCE: 1443.008U5
CURRENT FILING DATE: 2002-08-15
FILE REPERENCE: 10/032,376
FILE REPERENCE: 2002-08-15
FILE REPERENCE: 2002-08-15
FILE REPERENCE: 2002-08-15
FILE REPERENCE: 2002-08-15
FILE REPERENCE: 2001-12-21
FILE REPERENCE: 2001-12-21
FILE REPERENCE: 2001-12-21
FILE REPERENCE: 2001-12-21
FILENG PAPLICATION NUMBER: US 60/312,726
FILENG APPLICATION NUMBER: US 60/312,726
FILENGRARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 11
FLENGRAR: PARENCE THE TERM THE TER
                                                                                                                                        GENERAL INFOGRATION.

GENERAL INFOGRATION.

APPLICANT: Quirk, Scephen

TILE OF INVENTION: Anti-Aging and Wound Healing Compounds

TILE OF INVENTION: Anti-Aging and Wound Healing Compounds

FILE REFERENCE: 1443.0344013

CURRENT APPLICATION NUMBER: US/10/153,185

CURRENT FILING DATE: 2002-08-13

PRIOR APPLICATION NUMBER: US 60/312,726

PRIOR APPLICATION NUMBER: US 60/312,726

PRIOR APPLICATION NUMBER: US 60/312,726

PRIOR PILING DATE: 2001-08-16

NUMBER OF SEC ID NOS: 20

SOFTWARE: FastSEQ for Windows Version 4.0

SOFTWARE: PRICE TOWN OF SEC ID NOS: 20

TYPE: PRT

ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 54; DB 4; Length 19; 100.0%; Pred. No. 0.053; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
100.0%; Score 54; DB 4; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.053;
Matches 9; Conservative 0; Mismatches 0; Indels
                                       Sequence 11, Application US/10153185
Publication No. US20030148959A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            , ORGANISM: Homo sapiens
US-10-219-561-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-032-376A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 11, Application US/10219329
Publication No. US20030096757A1
| GENERAL INFORMATION:
| APPLICANT: UNIVERSITY ON:
| APPLICANT: Weart, Ilona f. |
| ITILE OF INVERNION: Anti-Cancer and Wound Healing Compounds FILE REFERENCE: 1443.035W01 |
| CURRENT APPLICATION NUMBER: US/10/219,329 |
| CURRENT APPLICATION NUMBER: US 10/032,376 |
| PRIOR FILING DATE: 2001-12-21 |
| PRIOR FILING DATE: 2001-08-16 |
| NUMBER OF SEQ ID NOS 203-08-15 |
| NUMBER OF SEQ ID NOS 23 |
| SEQ ID NO 11 |
| LENGTH: 19 |
| LENGTH: 19 |
| CONTRACT OF SEQ OF Windows Version 4.0 |
| CONTRACT OF SEQ OF WINDOWS NOT SEQ OF WHAT IN TAXABLE OF SEQ OF WINDOWS NOT SEQ OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 54; DB 4; Length 19; 100.0%; Pred. No. 0.053; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 54; DB 4; Length 17; 100.0%; Pred. No. 0.047; tive 0; Mismatches 0; Indels
                                                                                                                           100.0%; Score 54; DB 4; Length 17; 100.0%; Pred. No. 0.047;
                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Malik, Sohail
APPLICANT: Quirk, Stephen
TITLE OF INVENTION: Method to Increase Fibronectin
FILE REFERENCE: 1443.047081
CURRENT APPLICATION NUMBER: US/10/335,207
CURRENT FILING DATE: 2002-12-30
NUMBER OF SEQ ID NOS: 21
SOFTWARE: FASTESEQ for Windows Version 4.0
                                                                                                                                                                                                               0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Sequence 20, Application US/10335207; Publication No. US20040127421A1; GENERAL INFORMATION:
                                                                                                                                                                   Best Local Similarity 100. Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
; ORGANISM: Homo sapiens
US-10-219-561-20
                                                                                                                                                                                                                                                                                                                                                            PRCGNPDVA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 17
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRCGNPDVA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                               1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 11
US-10-335-207-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JS-10-335-207-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 12
US-10-219-329-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-219-329-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO 20
                                                                                                                           Query Match
```

8

ö

Gaps

ö

ö

ö

RESULT 13

Gaps

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 15, Application US/10219329
; Sequence 15, Application US/10219329
; Publication No. US20030096757A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Weart, Inona f.
; TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
; FILE REFERENCE: 1443.035W01
; CURRENT APPLICATION NUMBER: US/10/219,329
; CURRENT FILING DATE: 2002-08-15
; PRIOR PILING DATE: 2001-08-16
; PRIOR FILING DATE: 2001-08-16
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 23
; SCOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
; LENGTH: 43
; TENGTH: 43
                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 11, Application US/11031488

Sequence 11, Application US/11031488

Publication No. US20050239710A1

GENERAL INFORMATION:
APPLICANT: Malik, Stephen
FILE REPERENCE: 1443.034US1

CURRENT APPLICATION NUMBER: US/11/031,488

CURRENT APPLICATION NUMBER: US/11/031,488

CURRENT APPLICATION NUMBER: US/10/153,185

PRIOR FILING DATE: 2005-05-21

PRIOR FILING DATE: 2001-06-16

PRIOR FILING DATE: 2001-08-16

PRIOR FILING DATE: 2001-08-16

PRIOR FILING DATE: 2001-08-16

PRIOR FILING DATE: 2001-08-16

SOFTWARE: FABLESCQ for Windows Version 4.0

SOFTWARE: PABLESCQ for Windows Version 4.0
                                                                                                                                                                                                        100.0%; Score 54; DB 5; Length 19; 100.0%; Pred. No. 0.053;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 54; DB 6; Length 19; 100.0%; Pred. No. 0.053; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                   0; Mismatches
                           NUMBER OF SEQ ID NOS: 21
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 11
LENGTH: 19
         PRIOR FILING DATE: 2001-08-16
                                                                                                                                                                                 Query Match
Best Local Similarity 100..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; TYPE: PRT; ORGANISM: Homo sapiens US-10-601-059-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                            1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                       1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 19
US-10-219-329-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-11-031-488-11
                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                       100.0%; Score 54; DB 4; Length 19; 100.0%; Pred. No. 0.053;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 54; DB 4; Length 19; 100.0%; Pred. No. 0.053; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 11. Application US/10601059
| Publication No. US20040259802A1
| GENERAL INFORMATION:
| APPLICANT: Yang, Shu-Fing
| APPLICANT: Quirk, Stephen
| APPLICANT: Quirk, Stephen
| TITLE OF INVENTION: Anti-Chrondrogarcoma Compounds
| FILE REFERENCE: 1443.064US1
| CURRENT PILICATION NUMBER: US/10/601,059
| PRIOR APPLICATION NUMBER: US 10/335,207
| PRIOR APPLICATION NUMBER: US 10/319
| PRIOR PILING DATE: 2002-08-15
| PRIOR APPLICATION NUMBER: PS 10/219,329
| PRIOR PILING DATE: 2002-08-15
| PRIOR APPLICATION NUMBER: US 10/153,185
| PRIOR APPLICATION NUMBER: US 10/153,185
| PRIOR APPLICATION NUMBER: US 10/032,376
| PRIOR PILING DATE: 2001-12-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-335-207-11

Sequence 11, Application US/10335207

Publication No. US20040127421A1

GENERAL INFORMATION:

APPLICANT: Walik, Sobail

APPLICANT: Quirk, Stephen

TITLE OF INTERNION: Method to Increase Fibronectin

TITLE OF INTERNION: Method to Increase Fibronectin

CURRENT APPLICATION UNBER: US/10/335,207

CURRENT FILING DATE: 2002-12-30

NUMBER OF SEQ ID NOS: 21

SEQ ID NO : SEQ ID NOS: 21

SEQ ID NO : 11

LENGTH: 19
FILE REFERENCE: 1443.008US1
CURRENT APPLICATION NUMBER: US/10/032,376A
CURRENT FILING DATE: 2001-12-21
FRIOR APPLICATION NUMBER: 60/312,726
FRIOR FILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 20
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 11
LENGTH: 19
                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                       ||||||||||
1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 PRCGNPDVA 9
                                                                                                                                                                                                                                              US-10-032-376A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-335-207-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-601-059-11
                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
```

ö

Gape

```
Sequence 15, Application US/10032376A; Publication No. US20040127420A1; Publication No. US20040127420A1; GENERAL INFORMATION: GENERAL INFORMATION: GENERAL INFORMATION: TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing; TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing; FILE REPERENCE: 1443.008US1; CURRENT APPLICATION NUMBER: US/10/032,376A; CURRENT APPLICATION NUMBER: G0/312,726; PRIOR FILING DATE: 2001-12-21; PRIOR FILING DATE: 2001-08-16; NUMBER OF SEQ ID NOS: 20; SOFTWARE: FastSEQ for Windows Version 4.0; SEQ ID NO 15; LENGTH: 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11arity 100.0%; Score 54; DB 4; Length 43; larity 100.0%; Pred. No. 0.11; Conservative 0; Mismatches 0: Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
100.0%; Score 54; DB 4; Length 43;
Best Local Similarity 100.0%; Pred. No. 0.11;
Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 15, Application US/10335207;
Publication No. US20040127421A1
GENERAL INFORMATION:
APPLICANT: Malik, Sohail
APPLICANT: Quirk, Stephen
TITLE OF INVENTION: Method to Increase Fibronectin
FILE REFERENCE: 1443.047081
CURRENT APPLICATION NUMBER: US/10/335,207
CURRENT FILING DATE: 2002-12-30
NUMBER OF SEQ ID NOS: 21
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 15
LENGTH: 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 15, Application US/10601059
Sequence 15, Application US/10601059
Publication No. US20040259802A1
GENERAL INFORMATION:
APPLICANT: Yang, Shu-Ping
APPLICANT: Cuirk, Stephen
APPLICANT: Cuirk, Stephen
APPLICANT: AIMBERIY-CLIARK Worldwide, Inc.
TITLE OF INVENTION: ALLI-Chrondrosarcoma Compounds
FILE REPERENCE: 1443.064US1
CURRENT APPLICATION NUMBER: US/10/601,059
                                               24 PRCGNPDVA 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; ORGANISM: Homo sapiens
US-10-335-207-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24 PRCGNPDVA 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24 PRCGNPDVA 32
      1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
Matches 9; Conserv
                                                                                                                                                                    RESULT 22
US-10-032-376A-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-032-376A-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-335-207-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
      ઠે
                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                      RESULT 20
US-10-153-185-15

is Sequence 15, Application US/10153185

j Sequence 15, Application US/10153185

j Publication No. US20030148959A1

j GENERAL INFORMATION:
    APFLICANT: Quirk, Stephen
    TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
    TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
    TILE REFERENCE: 1443.034US1
    CURRENT FILING DATE: 2002-08-13
    PRIOR FILING DATE: 2002-08-13
    PRIOR RELING DATE: 2001-08-16
    PRIOR PILING DATE: 2001-08-16
    NUMBER OF SEQ ID NOS: 20
    SOFTWARE: PSSEC for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 21
US-10-219-561-15
sequence 15, Application US/10219561
spequence 15, Application US/10219561
spedication No. US20030166567A1
spedication No. US20030166567A1
spedication No. US2003016567A1
spedication No. US20030166567A1
spedication No. US2003016567A1
spedication No. US2003016567A1
spedication Norman 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 100.0%; Score 54; DB 4; Length 43; Best Local Similarity 100.0%; Pred. No. 0.11; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 54; DB 4; Length 43; 100.0%; Pred. No. 0.11; ive 0; Mismatches 0; Indels
                                                                 100.0%; Score 54; DB 4; Length 43; 100.0%; Pred. No. 0.11;
                                                                                                                                  0; Indels
                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                  9; Conservative
                                                                                                                                                                                                                                        24 PRCGNPDVA 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24 PRCGNPDVA 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                                   1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 PRCGNPDVA 9
                                                             Query Match
Best Local Similarity
Matches 9; Conserv
JS-10-219-329-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-153-185-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JS-10-219-561-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 15
LENGTH: 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
```

; 0

Gaps

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-15-185-2

Sequence 2, Application US/10153185

Sequence 2, Application US/10153185

Publication No. US20030148959A1

GENERAL INFORMATION:

APPLICANT: Quirk, Stephen

TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds

FILE REFERENCE: 1443.034US.

CURRENT FILING DATE: 2002-08-13

FRIOR PAPLICATION NUMBER: US/10/153,185

PRIOR PLING DATE: 2001-08-13

PRIOR PLING DATE: 2001-12-21

PRIOR APPLICATION NUMBER: US 60/312,726

PRIOR APPLICATION NUMBER: US 60/312,726

PRIOR APPLICATION NUMBER: 2001-08-16

NUMBER OF SEQ ID NOS: 20

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 2.

LENGTH. 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JUSTICATION OF US2030166567A1

Sequence 2, Application US/10219561

Fublication No. US2030166567A1

SERERAL INFORMATION:

APPLICANT: Quirk, Schail

APPLICANT: Willanueva, Julie M.

TITLE OP INVENTION: Anti-Aging and Wound Healing Compounds

FILE REFERENCE: 1443.008US2

CURRENT APPLICATION NUMBER: US/10/219,561

CURRENT FILING DATE: 2002-08-15

PRIOR APPLICATION NUMBER: US 10/153,185

PRIOR PILING DATE: 2002-05-21

PRIOR PILING DATE: 2002-05-21

PRIOR PILING DATE: 2002-06-21

PRIOR PILING DATE: 2001-08-16

PRIOR FILING DATE: 2001-08-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 54; DB 4; Length 44; illarity 100.0%; Pred. No. 0.12; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                100.0%; Score 54; DB 4; Length 44; 100.0%; Pred. No. 0.12;
                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
       CURRENT APPLICATION NUMBER: US/10/219,329
CURRENT FILING DATE: 2002-08-15
PRIOR APPLICATION NUMBER: US 10/032,376
PRIOR PILING DATE: 2001-12-21
PRIOR PLING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 23
SEQ ID NO 2
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100...
9, Conservative
                                                                                                                                                                                                                                                                            ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24 PRCGNPDVA 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24 PRCGNPDVA 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
9; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                   US-10-219-329-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-153-185-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ਠੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-11-031-488-15

// Sequence 15, Application US/11031488

// Publication No. US20050239710A1

// SERRAL INFORMATION:
// APPLICANT: Malik, Schail
// TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
// TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
// TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
// CURRENT APPLICATION NUMBER: US/11/031,488
// CURRENT PILING DATE: 2005-01-07
// PRIOR APPLICATION NUMBER: US/10/153,185
// PRIOR PILING DATE: 2001-05-21
// PRIOR APPLICATION NUMBER: US 10/032,376
// PRIOR APPLICATION NUMBER: US 60/312,726
// PRIOR APPLICATION NUMBER: 2001-08-16
// PRIOR APPLICATION NUMBER: 2001-08-16
// PRIOR PILING DATE: 2001-08-16
// PRIOR FILING DATE: 2001-08-16
// SEQ ID NO 15
// LENGTH: 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 54; DB 5; Length 43; 100.0%; Pred. No. 0.11; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 54; DB 6; Length 43; 100.0%; Pred. No. 0.11; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 2, Application US/10219329

Publication No. US2030096757A1

GREEAL INFORMATION

APPLICANT: Quirk, Stephen

TITLE OF INVERTION: Anti-Cancer and Wound Healing Compounds

FILE REFERENCE: 1443.035W01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0.11;
hag 0; Indels
CURRENT FILING DATE: 2003-06-20
PRIOR APPLICATION NUMBER: US 10/335,207
PRIOR FILING DATE: 2002-12-30
PRIOR PILING DATE: 2002-12-30
PRIOR PILING DATE: 2002-08-15
PRIOR PILING DATE: 2001-08-15
PRIOR PILING DATE: 2001-12-11
PRIOR PILING DATE: 2001-12-11
PRIOR PILING DATE: 2001-12-11
PRIOR PILING DATE: 2001-08-16
PRIOR PILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 21
SEQ ID NO 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1||||||||
24 PRCGNPDVA 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; ORGANISM: Homo sapiens
US-11-031-488-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24 PRCGNPDVA 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-601-059-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-219-329-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
```

a ઠે

ö

Gaps

ઠે 셤

```
Sequence 2, Application US/11031488

Sequence 2, Application US/11031488

Publication No. US20050239710A1

GENERAL INFORMATION:

APPLICANT: Quirk, Stephen

APPLICANT: Maik, Schail

TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds

FILE REFERENCE: 1443.034US1

CURRENT APPLICATION NUMBER: US/11/031,488

CURRENT FILING DATE: 2005-01-07

PRIOR APPLICATION NUMBER: US/10/153,185

PRIOR FILING DATE: 2002-05-21

PRIOR APPLICATION NUMBER: US 10/032,376

PRIOR APPLICATION NUMBER: US 60/312,726

PRIOR APPLICATION NUMBER: US 60/312,726

PRIOR APPLICATION NUMBER: US 60/312,726

SEQ ID NOS: 20

SEQ ID NO 2

SEQ ID NO 2

LENGTH: 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 100.0%; Score 54; DB 5; Length 44; Best Local Similarity 100.0%; Pred. No. 0.12; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.0%; Pred. No. 0.12;
Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                  Sequence 2, Application US/10601059
Sequence 2, Application US/10601059
Publication No. US2004025980241
GENERAL INNCORANTION:
APPLICANT: Vang, Shu-Ping
APPLICANT: Quirk, Stephen
APPLICANT: Wimberly-Clark Worldwide, Inc.
TITLE OF INVENTION: Anti-chrondrosarcoma Compounds
FILE REFERENCE: 1443.064US1
CURRENT APPLICATION NUMBER: US/10/601,059
CURRENT FILING DATE: 2003-06-20
FRIOR APPLICATION NUMBER: US 10/219,329
FRIOR PILING DATE: 2002-08-15
FRIOR PPLICATION NUMBER: WS 10/219,329
FRIOR PILING DATE: 2002-08-15
FRIOR PLILING DATE: 2002-08-15
FRIOR APPLICATION NUMBER: US 10/032,376
FRIOR APPLICATION NUMBER: US 00/032,376
FRIOR PILING DATE: 2001-12-21
FRIOR APPLICATION NUMBER: US 00/312,726
FRIOR PILING DATE: 2001-12-21
FRIOR APPLICATION NUMBER: US 00/312,726
FRIOR FILING DATE: 2001-12-21
FRIOR FILING DATE: 2001-18-16
FRIOR FILING DATE: 2001-08-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24 PRCGNPDVA 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-601-059-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-11-031-488-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2, Application US/10032376A
Publication No. US20040127420A1
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
FILE REFERENCE: 1443.008US1
CURRENT APPLICATION NUMBER: US/10/032,376A
CURRENT FILING DATE: 2001-12-21
FRIOR APPLICATION NUMBER: 60/312,726
FRIOR RIGHG DATE: 2001-08-16
FRIOR FILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 20
SOFTWARE: FRASESQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.0%; Pred. No. 0.12;
Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 54; DB 4; Length 44; 100.0%; Pred. No. 0.12; cive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                      100.0%; Score 54; DB 4; Length 44; 100.0%; Pred. No. 0.12;
                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 30
US-10-335-207-2
Sequence 2, Application US/10335207
Sequence 2, Application US/10335207
GENERAL INFORMATION:
APPLICANT: Malik, Schail
APPLICANT: Quirk, Stephen
TITLE OF INVENTION: Method to Increase Fibronectin
FILE REFERENCE: 1443-047USI
CURRENT APPLICATION NUMBER: US/10/335,207
CURRENT FILING DATE: 2002-12-30
NUMBER OF SEQ ID NOS: 21
SOFTWARE: FastsEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                   0; Mismatches
NUMBER OF SEQ ID NOS: 21
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 2
                                                                                                                                                                                                                                                   Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                              TYPE: PRT
ORGANISM: Homo sapiens
US-10-219-561-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; LENCTH: 44
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-335-207-2
                                                                                                                                                                                                                                                                                                                                                                                                              24 PRCGNPDVA 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24 PRCGNPDVA 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      [||||||||
24 PRCGNPDVA 32
                                                                                                                                                                                                                                                                                                                                                                            1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 29
US-10-032-376A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JS-10-032-376A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

Gaps

ö

ö

Gaps

a

```
100.0%; Score 54; DB 3; Length 77; 100.0%; Pred. No. 0.2;
                                                                            Sequence 11, Application US/09833747A

Sequence 11, Application US/09833747A

Patent No. US2020151481A1

GENERAL INFORMATION:
APPLICANT: Weisabach, Lawrence
TITLE OF INVENTION: MMP-2 PROPEPTIDE FOR USE AS
TITLE OF INVENTION: ANTIANGIOGENIC OR ANTITUMOR AGENT
FILE REFERENCE: 00786-430001

CURRENT FILING DATE: 2001-04-12

PRIOR PRIOR PELICATION NUMBER: US 60/200,115

PRIOR PELICATION NUMBER: US 60/200,115

PRIOR PELICATION NUMBER: US 60/200,115

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 11

LENGTH: 77

TENTER: NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 8, Application US/09833747A
Sequence 8, Application US/09833747A
Fatent No. US20020151481A1
GENERAL INFORMATION:
TITLE OF INVENTION: MAPL-2 PROPERTIDE FOR USE AS
TITLE OF INVENTION: ANTIANGIOGENIC OR ANTITUMOR AGENT
FILE REFERENCE: 00786-43001
CURRENT APPLICATION NUMBER: US/09/833,747A
CURRENT PLILING DATE: 2001-04-12
FRIOR PILING DATE: 2001-04-27
NUMBER OF SEQ ID NOS: 15
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 8
SEQ ID NO 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: consensus sequence
MANE/KEY: VARIANT
LOCATION: 25
OTHER INFORMATION: Xaa = Phe or Tyr
NAME/KEY: VARIANT
LOCATION: 31
OTHER INFORMATION: Xaa = Glu or Asp
NAME/KEY: VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LUCATION: 53
OTHER INFORMATION: Xaa = Gln or Glu
NAME/KEY: VARIANT
LOCATION: 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OTHER INFORMATION: Xaa = Ser or Asn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ), OTHER INFORMATION: Xaa = Arg or Lys
US-09-833-747A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Oryctolagus cuniculus
                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
49 PRCGNPDVA 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  68 PRCGNPDVA 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVA 9
                                                                            JS-09-833-747A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-833-747A-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-833-747A-8
                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PEATURE:
OTHER INFORMATION: MAP TO AC007336.2
OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 1.1
OTHER INFORMATION: EXPRESSED IN FLACENTA, SIGNAL = 1.5
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 2
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 2
OTHER INFORMATION: EXT HUMAN HIT: A1752577.1, EVALUE 1.00e-41
US-09-864-761-37964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 54; DB 3; Length 75; 100.0%; Pred. No. 0.19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Homo sapiens
 24 PRCGNPDVA 32
                                                              US-09-864-761-37964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 37964
LENGTH: 75
```

ö

Gaps

ö

100.0%; Score 54; DB 3; Length 79;

Query Match

Gaps

```
0; Gaps
                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 100.0%; Score 54; DB 3; Length 80; Best Local Similarity 100.0%; Pred. No. 0.21; Matches 9; Conservative 0; Mismatches 0; Indels
100.0%; Score 54; DB 3; Length 80; 100.0%; Pred. No. 0.21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 54; DB 3; Length 80; 100.0%; Pred. No. 0.21;
                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 10, Application US/0983747A

Sequence 10, Application US/0983747A

Patent No. US20020151481A1

GENERAL INFORMATION:
APPLICANT: Welsbach, Lawrence

TITLE OF INVENTION: MMP-2 PROPEPTIDE FOR USE AS

TITLE OF INVENTION: ANTIANGIOGENIC OR ANTITUMOR AGENT
FILE REFERENCE: 00786-430001

CURRENT APPLICATION NUMBER: US/09/833,747A

CURRENT FILING DATE: 2001-04-12

PRIOR PILING DATE: 2000-04-27

NUMBER OF SEQ ID NOS: 15

SEQ ID NO 10

LENGTH: 80
                                                                                                                                                                                                                                                                                      GENERAL NO. USZYOZZISIOZIA;
GENERAL NO. USZYOZZISIOZIA;
GENERAL PROPARATION:
TITLE OF INVENTION: MMP-2 PROPEPTIDE FOR USE AS;
TITLE OF INVENTION: MYNBARIOGENIC OR ANTITUMOR AGENT;
FILE REFERENCE: 00786-43001
CURRENT PEPLICATION NUMBER: US/09/833,747A
CURRENT FILING DATE: 2001-04-12;
PRIOR APPLICATION NUMBER: US 60/200,115;
PRIOR FILING DATE: 2000-04-27;
NUMBER OF SEQ ID NOS: 15
SOFTWARE: PRASESEQ for Windows Version 4.0
; SEQ ID NO 7
                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Sequence 12, Application US/09833747A ; Patent No. US20020151481A1
                                                                                                                                                                                                                                                Sequence 7, Application US/09833747A Patent No. US20020151481A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Rattus norvegicus
Query Match
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Gallus gallus
                                                                                                                         71 PRCGNPDVA 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   71 PRCGNPDVA 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     71 PRCGNPDVA 79
                                                                                           1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-833-747A-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 40
US-09-833-747A-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-833-747A-10
                                                                                                                                                                                                                                US-09-833-747A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-833-747A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 80
                                                                                               ઠે
                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 54; DB 3; Length 79; 100.0%; Pred. No. 0.2; tive 0; Mismatches 0; Indels
                         0; Indels
                                                                                                                                                                                                                    Sequence 9, Application US/09833747A
; Sequence 9, Application US/09833747A
; Patent No. US20020151481A1
; GENERAL INFORMATION:
TITLE OF INVENTION: ANTIANGIOGENIC OR ANTITUMOR AGENT
; FILE REFERENCE: 00786-430001
; CURRENT APPLICATION NUMBER: US/09/833,747A
; CURRENT FILING DATE: 2001-04-12
; PRIOR PILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 15
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
; LENGTH: 79
; TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: Weissbach, Lawrence
TITLE OF INVENTION: MAP-2 PROPERTIDE FOR USE AS
TITLE OF INVENTION: MAP-2 PROPERTIDE FOR USE AS
TITLE OF INVENTION: MAP-2 PROPERTIDE OF ANTITUMOR AGENT
FILE REFERENCE: 00786-430001
CURRENT APPLICATION NUMBER: US/09/833,747A
CURRENT APPLICATION NUMBER: US 60/200,115
PRIOR APPLICATION NUMBER: US 60/200,115
PRIOR FILING DATE: 2000-04-27
NUMBER OF SEQ ID NOS: 15
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 1
LENGTH: 80
  Best Local Similarity 100.0%; Pred. No. 0.2; Matches 9; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: consensus sequence NAME/KEY: VARIANT LOCATION: 4 OTHER INFORMATION: Xaa = Ile or Val NAME/KEY: VARIANT LOCATION: 33 OTHER INFORMATION: Xaa = Glu or Asp NAME/KEY: VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTHER INFORMATION: Xaa = Asp or Glu NAME/KEY: VARIANT LOCATION: 62
COATION: 62
US-09-833-747A-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Sequence 1, Application US/09833747A
; Patent No. US20020151481A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                               10 PRCGNPDVA 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRCGNPDVA 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
CORGANISM: Homo sapiens
US-09-833-747A-1
                                                                      1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 PRCGNPDVA 9
                                                                                                                                                                                 RESULT 36
US-09-833-747A-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 37
US-09-833-747A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                      8
```

ó

Gaps

Gaps

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                            100.0%; Score 54; DB 3; Length 80; 100.0%; Pred. No. 0.21; Artive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 54; DB 3; Length 80; 100.0%; Pred. No. 0.21; artive 0; Mismatches 0; Indel8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 54; DB 3; Length 92; Pred. No. 0.24;
                                                                                                                                                                                                                                                                                                                                                                             Sequence 15, Application US/0983747A
Fatent No. US20020151481A1
GENERAL INFORMATION:
APPLICANT: Weisebach, Lawrence
TITLE OF INVENTION: MMP-2 PROPERTIDE FOR USE AS
TITLE OF INVENTION: MMP-2 PROPERTIDE FOR USE AS
TITLE OF INVENTION: WHINAGLOGENIC OR ANTITUMOR AGENT
CURRENT PRILIAGO 10786-430001
CURRENT PILING DATE: 2001-04-12
FRIOR PELICATION NUMBER: US 60/200,115
PRIOR PELICATION NUMBER: US 60/200,115
PRIOR PELICATION NUMBER: US 60/200,115
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 15
LENGTH: 80
TENERTH: 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2. Application US/09833747A

Fatent No. US20020151481A1

GENERAL INFORMATION:

APPLICANT: Weissbard.

TITLE OF INVENTION: MMP-2 PROPEPTIDE FOR USE AS

TITLE OF INVENTION: ANTIANGIOGENIC OR ANTITUMOR AGENT

FILE REFERENCE: 00786-430016

CURRENT APPLICATION NUMBER: US/09/833,747A

CURRENT PILING DATE: 2001-04-12

FRIOR APPLICATION NUMBER: US 60/200,115

FRIOR FILING DATE: 2000-04-27

NUMBER OF SEQ ID NOS: 15

SEQ ID NO 2

LENGTH: 92
PRIOR FILING DATE: 2000-04-27
NUMBER OF SEQ ID NOS: 15
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 14
LENGTH: 80
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION: consensus sequence US-09-833-747A-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                  ; ORGANISM: Rattus norvegicus US-09-833-747A-14
                                                                                                                                                           Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                               71 PRCGNPDVA 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                71 PRCGNPDVA 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                         1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                           US-09-833-747A-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-833-747A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-833-747A-2
                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 54; DB 3; Length 80; 100.0%; Pred. No. 0.21; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 54; DB 3; Length 80; 100.0%; Pred. No. 0.21; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Weissbach, Lawrence
TITLE OF INVENTION: MAP-2 ROOPEPTIDE FOR USE AS
TITLE OF INVENTION: MATANGIOGENIC OR ANTITUMOR AGENT
FILE REFERENCE: 00786-430001
CURRENT APPLICATION NUMBER: US/09/833,747A
CURRENT FILING DATE: 2001-04-12
PRIOR APPLICATION NUMBER: US 60/200,115
PRIOR APPLICATION NUMBER: US 60/200,115
NUMBER OF SEQ ID NOS: 15
SOFTWARE: PRESE 200-04-27
NUMBER OF SEQ ID NOS: 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 14, Application US/09833747A

Patent No. US20020151481A1

GENERAL INPORMATION:
APPLICANT: Weisebach, Lawrence
TITLE OF INVENTION: MAP-2 PROPERTIDE FOR USE AS
TITLE OF INVENTION: ANTIANGIOGENIC OR ANTITUMOR AGENT
FILE REFERENCE: 00786-430001

CURRENT APPLICATION NUMBER: US/09/833,747A

CURRENT PILING DATE: 2001-04-12

PRIOR APPLICATION NUMBER: US 60/200,115
                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: consensus sequence
                                                                                                                                                                                                                                                                                                                                                        LOCATION: 13
OTHER INFORMATION: Xaa = Ala or Ser
                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             71 PRCGNPDVA 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          71 PRCGNPDVA 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                        NAME/KEY: VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 42
US-09-833-747A-14
                                                                                                                                                                                                                                                                                                                                                                                                    US-09-833-747A-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 41
US-09-833-747A-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-833-747A-13
                                                                                                                                                                                                                 SEQ ID NO 12
LENGTH: 80
                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                  FEATURE:
```

ઠે

ઠે

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                Gapa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Wang, Kai
APPLICANT: Smith, Ryan
APPLICANT: Fajardo, Mark
APPLICANT: Fajardo, Mark
APPLICANT: Moss, Patrick
TITLE OF INVENTION: A NOVEL MATRIX METALLOPROTEINASE (MMP-25)
TITLE OF INVENTION: EXPRESSED IN SKIN CELLS
FILE REFERENCE: 240083.50
CURRENT APPLICATION NUMBER: US/09/801,196
CURRENT FILING DATE: 2001-03-06
NUMBER OF SEQ ID NOS: 37
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 35
LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ..
0
                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                         USON SEQUENCE 19, Application US/09391104

Fublication No. US20020031817A1

FUBLICAUT: Abbott Laboratories

APPLICAUT: Abbott Laboratories

APPLICAUT: Maganuson, Scott R.

TITLE OF INVENTION: HUMAN MATRIX METALLOPROFEASE GENE,

TITLE OF INVENTION: PROTEINS ENCODED THEREFROM AND METHODS

TITLE OF INVENTION: OF USING SAME

FILE REFERENCE: 6073.US.Pl

CURRENT APPLICATION NUMBER: US/09/391,104

CURRENT PILING DATE: 1999-09-07

PRIOR FILING DATE: 1997-03-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
100.0%; Score 54; DB 3; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 100.0%; Score 54; DB 3; Length 660; Best Local Similarity 100.0%; Pred. No. 1.5; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                Length 468;
                                                                                                                                                              Indels
// NAME/KEY: misc_feature
// LOCATION: (1)...(468)
// CTHER INFORMATION: Xaa = X or * as defined in Table
US-10-450-763-54360
                                                                                                                                                              ö
                                                                                                                   ŝ
                                                                                                              Score 54; DB :
Pred. No. 1.1;
                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 35
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 35, Application US/09801196
Patent No. US20020037827A1
GENERAL INFORMATION:
                                                                                                              Query Match
Best Local Similarity 100.0%;
Matches 9; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100 PRCGNPDVA 108
                                                                                                                                                                                                                                   ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 PRCGNPDVA 9
                                                                                                                                                                                                         1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Fas
SEQ ID NO 19
LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-801-196-35
                                                                                                                                                                                                                                                                                                                                                 US-09-391-104-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-801-196-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-391-104-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                     APPLICANT: Macina, Roberto
APPLICANT: Turner, Leah
APPLICANT: Turner, Leah
APPLICANT: Sun, Yongmaing
TITLE OF INVENTION: Compositions, Splice Variants and Methods Relating to Lung Specif
TITLE OF INVENTION: Nucleic Acids and Proteins
TITLE OF INVENTION: Nucleic Acids and Proteins
FILE REPERENCE: DEX-0486
CURRENT PAPLICATION NUMBER: US/10/852,707
CURRENT PLING DATE: 2004-05-24
PRIOR APPLICATION NUMBER: US 60/473,941
PRIOR FILING DATE: 2003-05-22
NUMBER OF SEQ ID NOS: 138
SOFTWARE: Patentin Version 3.1
SEQ ID NO 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: DOMAIN
LOCATION: (221)..(258)
OTHER INFORMATION: Type II fibronectin collagen-binding domain proteins domain
OTHER INFORMATION: dentified by eMATRIX, accession number BL00023, p-value=4.682e-3
OTHER INFORMATION: raw score of 24.31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: (167)...(264)
OTHER INFORMATION: Fibronectin type II domain identified by PFam, accession name
OTHER INFORMATION: fn2, E-value=4.4e-55, PFam score of 147.1
PEATURE:
  ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 54; DB 5; Length 462; 100.0%; Pred. No. 1.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 46
US-10-450-763-54360
; Sequence 54360, Application US/10450763
; Publication No. US20050196754A1
; GENERAL INFORMATION:
; APPLICANT: Hyseq, Inc.
; TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES
; FILE REFERENCE: 790C1P3/US
; CURRENT APPLICATION NUMBER: PCT/US01/08631
; CURRENT FILING DATE: 2003-06-11
; PRIOR FILING DATE: 2001-03-30
; PRIOR FILING DATE: 2000-03-31
; RIUMBER OF SEQ ID NOS: 60736
; SOFTWARE: CUSCOM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
  0; Indels
  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                         RESULT 45
US-10-852-707-56
Sequence 56, Application US/10852707
Publication No. US20050142572A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
  9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100 PRCGNPDVA 108
                                                                                      83 PRCGNPDVA 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo sapiens
                                             1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
NAME/KEY: DOMAIN
LOCATION: (167)..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-852-707-56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ਨੇ
```

g

ð

```
APPLICANT: Berger, Allison
APPLICANT: Berger, Allison
APPLICANT: Guillemette, Tracy L.
APPLICANT: Amatkar, Shubhangi
APPLICANT: Amatkar, Shubhangi
APPLICANT: Schlegel, Robert
APPLICANT: Thibodeau, Stephen N.
APPLICANT: Thibodeau, Stephen N.
APPLICANT: Burgart, Lawrence J.
TITLE OF INVENTION: WITHERAPY OF COLON CANCER
TITLE OF INVENTION: MITHERAPY OF COLON CANCER
TITLE OF INVENTION: MITHERER: US/10/301,822
TITLE OF INVENTION NUMBER: US 60/339,971
PRIOR FILING DATE: 2001-12.21
PRIOR FILING DATE: 2001-12.21
PRIOR FILING DATE: 2002-03-05
PRIOR FILING DATE: 2002-03-05
PRIOR FILING DATE: 2002-03-05
PRIOR FILING DATE: 2002-05-20
NUMBER OF SEQ ID NOS: 228
SSQ ID NO 125
TENETH FASTSER F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 14, Application US/10153185
Fublication No. US2003014895941
FREMENT INFORMATION:
APPLICANT: Quirk, Stephen
APPLICANT: Quirk, Schail
FILE REFERENCE: 1443.034031
CURRENT FILING DATE: 2002-08-13
FRIOR APPLICATION NUMBER: US/10/153,185
CURRENT FILING DATE: 2001-12-21
FRIOR APPLICATION NUMBER: US 60/312,726
FRIOR FILING DATE: 2001-08-16
FRIOR FILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 20
SOFTWARE: FASELSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 54; DB 4; Length 660; 100.0%; Pred. No. 1.5; tive 0; Mismatches 0; Indel8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 54; DB 4; Length 660; 100.0%; Pred. No. 1.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
Sequence 125, Application US/10301822
Publication No. US20030148410A1
GENERAL INFORMATION:
APPLICANT: Millennium Pharmaceuticals, Inc.
APPLICANT: Berger, Allison
APPLICANT: Guillemette, Tracy L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity luv...
9, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      , ORGANISM: Homo Sapiens
US-10-301-822-125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-153-185-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 14
LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-219-329-14

Sequence 14, Application US/10219329

Sequence 14, Application US/10219329

Publication No. US20030096757A1

GENERAL INFORMATION:

APPLICANT: Weart, Ilona f.

TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
FILE REFERENCE: 144-3.035W01

CURRENT FILING DATE: 2020-08-15

CURRENT FILING DATE: 2002-08-15

PRIOR FILING DATE: 2001-12-21

PRIOR APPLICATION NUMBER: US 60/312,726

PRIOR FILING DATE: 2001-08-16

NUMBER OF SEQ ID NOS: 23

SOFTWARE: FastSEQ for Windows Version 4.0

LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match

100.0%; Score 54; DB 3; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 54; DB 4; Length 660;
100.0%; Pred. No. 1.5;
tive 0; Mismatches 0; Indels
                                                                                                                                                               Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100 PRCGNPDVA 108
                                 100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-918-715-208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-219-329-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 208
LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
```

g

ö

ઠ 요

```
US-10-032-376A-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-032-376A-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                 Sequence 14, Application US/10219561
| Publication No. US20030166557A1
| GENERAL INFORMATION:
| APPLICANT: Quirk, Stephen
| APPLICANT: Quirk, Stephen
| APPLICANT: Quirk, Schail
| APPLICANT: Willanueva, Julie M.
| TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
| FILE REFERENCE: 1443.008US2
| CURRENT APPLICATION NUMBER: US/10/219,561
| CURRENT FILING DATE: 2002-08-15
| PRIOR PILING DATE: 2002-08-15
| PRIOR PILING DATE: 2002-05-21
| PRIOR PILING DATE: 2001-12-21
| PRIOR PILING DATE: 2001-08-16
| PRIOR PILING DATE: 2001-08-16
| PRIOR PILING DATE: 2001-08-16
| WINGHER OF SEQ ID NOS: 21
| CONTAME: PRESEQ FOR Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 54; DB 4; Length 660; 100.0%; Pred. No. 1.5; 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 54; DB 4; Length 660; 100.0%; Pred. No. 1.5; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 25. Application US/10131985
; Publication No. US20030199440A1
; GENERAL INPORATION:
; APPLICANT: Davies, Michael J
; APPLICANT: Davies, Michael J
; APPLICANT: Fish, Paul V
; APPLICANT: Huggins, Jonathan P
; APPLICANT: McIntosh, Fraser S
; APPLICANT: McIntosh, Fraser S
; APPLICANT: Occleston, Nicholas L
; TITLE OF INVENTION: Composition
; FILE REFERENCE: PCS 10391A;
; CURRENT APPLICATION NUMBER: US/10/131,985
; CURRENT APPLICATION NUMBER: US/09/726,295
; PRIOR FILING DATE: 2000-11-30
; PRIOR FILING DATE: 1999-12-29
; NUMBER OF SEQ ID NOS: 60
; SOFTWARE: Patentin Ver: 2.1
; SEQ ID NO 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 PRCGNPDVA 9
RESULT 53
US-10-219-561-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-219-561-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 54
US-10-131-985-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-131-985-25
                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 14
LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
```

RESULT 55

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 54; DB 4; Length 660; 100.0%; Pred. No. 1.5;
                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 54; DB 4; Length 660; 100.0%; Pred. No. 1.5; cive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-335-207-14

Sequence 14, Application US/10335207

Publication No. US2040127421A1

GENERAL INFORMATION:
APPLICANT: Malik, Sohail

APPLICANT: Quirk, Stephen
TILE REPERENCE: 1443.0470S1

CURRENT APPLICATION: Method to Increase Fibronectin
FILE REPERINCE: 1443.0470S1

CURRENT APPLICATION NUMBER: US/10/335,207

CURRENT FILING DATE: 2002-12-30

NUMBER OF SEQ ID NOS: 21

SOFTWARE: PastSEQ for Windows Version 4.0
Sequence 3, Application US/10447315
Publication No. US20040071687A1
GENERAL INFORMATION:
APPLICANT: Raffil, Shahin
APPLICANT: Heissig, Beate
APPLICANT: Cornell Research Foundation, Inc.
TITLE OF INVENTION: Adult Stem Cell Recruitment
FILE REFERENCE: 1676.006U31
CURRENT APPLICATION NUMBER: US/10/447,315
CURRENT PILING DATE: 2003-05-28
FRIOR PILING DATE: 2002-05-28
NUMBER OF SEQ ID NOS: 28
SOUTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 3
IEMSTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Homo sapiens
US-10-447-315-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 PRCGNPDVA 9
```

ö

Gaps

ö

```
APPLICANT: Ulrich HAUPTS
APPLICANT: Andreas SCHEIDIG
APPLICANT: Andreas SCHEIDIG
APPLICANT: Andreas SCHEIDIG
APPLICANT: Christian VOETSMEIER
APPLICANT: Christian VOETSMEIER
TITLE OF INVENTION: NEW BIOLOGICAL ENTITIES AND USE THEREOF
FILE REPERENCE: 04156.00024
CURRENT APPLICATION NUMBER: US/10/872,198
CURRENT APPLICATION NUMBER: 60/543,518
PRIOR FILING DATE: 2004-02-11
PRIOR FILING DATE: 2003-11-25
PRIOR FILING DATE: 2003-11-25
PRIOR APPLICATION NUMBER: EP 04003058
                                                                                                                      100.0%; Score 54; DB 4; Length 660; 100.0%; Pred. No. 1.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 54; DB 5; Length 660; 100.0%; Pred. No. 1.5;
                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 14, Application US/10601059

Sublication No. US2004025980241

GENERAL INPORMATION:
APPLICANT: Yang, Shu-Ping
APPLICANT: Quirk, Stephen
APPLICANT: Mimberly-Clark Worldwide, Inc.
TITLE OF INVENTION: Anti-Chrondrosarcoma Compounds
FILE REPERENCE: 1443.064U51
CURRENT APPLICATION NUMBER: US/10/601,059
CURRENT APPLICATION NUMBER: US 10/33,207
PRIOR APPLICATION NUMBER: US 10/33,207
PRIOR APPLICATION NUMBER: US 10/219,329
PRIOR PILING DATE: 2002-08-15
PRIOR APPLICATION NUMBER: US 10/219,329
PRIOR PILING DATE: 2002-08-15
PRIOR PILING DATE: 2002-08-15
PRIOR PILING DATE: 2002-08-15
PRIOR PILING DATE: 2001-08-15
PRIOR FILING DATE: 2001-08-16
                                                                                                                                                                               0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 131, Application US/10872198; Publication No. US20050002897A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.
                                                                                                                   Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                             100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100 PRCGNPDVA 108
              ; TYPE: FRI; ORGANISM: Homo sapiens US-10-474-794-208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    , ORGANISM: Homo sapiens
US-10-601-059-14
                                                                                                                                                                                                                                    1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-872-198-131
        TYPE: PRT
                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Jepson, Holly
APPLICANT: Minshull, Claire
APPLICANT: Minshull, Claire
APPLICANT: Minshull, Claire
APPLICANT: Pauptit, Richard
APPLICANT: Pauptit, Richard
APPLICANT: Rowsell, Sian
TITLE OF INVENTION: METALLOPROTEINASE 9 (MMP9) AND THE USE OF
TITLE OF INVENTION: METALLOPROTEINASE 9 (MMP9) AND THE USE OF
TITLE OF INVENTION: METALLOPROTEINASE 9 (MMP9) AND THE DIBLE REPERENCE: 06275-3770S1
TITLE OF INVENTION: MMP99 MODULATORS
FILE REPERENCE: 06275-3770S1
CURRENT FILING DATE: 2003-12-12
PRIOR APPLICATION NUMBER: PCT/SE02/01266
PRIOR APPLICATION NUMBER: SE 0102298-7
PRIOR APPLICATION NUMBER: SE 0102298-7
PRIOR PELING DATE: 2001-06-27
NUMBER OF SEQ ID NOS: 2
SOFTWARE: PatentIN Ver. 2.1
SEQ ID NO 1
LENGTH: 660
                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                            100.0%; Score 54; DB 4; Length 660; 100.0%; Pred. No. 1.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 54; DB 4; Length 660; 100.0%; Pred. No. 1.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 2008, Application US/10474794

Sequence 2008, Application US/10474794

Publication No. US20040213793A1

GENERAL INFORMATION:

APPLICANT: Carson-Walter, Eleanor

APPLICANT: St. CACIK, Brad

APPLICANT: Kinzler, Kenneth

APPLICANT: Kinzler, Kenneth

TITLE OF INVENTION: BNDOTHELIAL CELL EXPRESSION PATTERNS

FILE REFERENCE: 1107.00179

CURRENT APPLICATION NUMBER: US/10/474,794

CURRENT FILING DATE: 2003-10-14

PRIOR APPLICATION NUMBER: 60/282,850

PRIOR FILING DATE: 2001-04-11

NUMBER OF SEQ ID NOS: 359

SOFTWARE: PSECS for Windows Version 4.0

SEQ ID NO 208
                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Indels
                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1, Application US/10480621 Publication No. US20040175817A1 GENERAL INFORMATION:
                                                                                                                                                                      Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                             100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100 PRCGNPDVA 108
                                                        TYPE: PRT
ORGANISM: Homo sapiens
US-10-335-207-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-480-621-1
                                                                                                                                                                                                                                                                                          1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 59
US-10-474-794-208
                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 58
US-10-480-621-1
; SEQ ID NO 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
```

ö

Gaps

.. 0

製造なる。

12 14 17

```
PRIOR APPLICATION NUMBER: US/09/11-03
PRIOR APPLICATION NUMBER: US/09/18,715
PRIOR PILING DATE: 2001-08-01
PRIOR PLING DATE: 2000-08-02
PRIOR APPLICATION NUMBER: 60/224,360
PRIOR APPLICATION NUMBER: 60/282,850
PRIOR PILING DATE: 2000-08-11
PRIOR PILING DATE: 2000-08-11
PRIOR PILING DATE: 2000-04-11
PRIOR PILING DATE: 2000-04-11
SOFTWARE: FastSEQ for Windows Version 3.0
SOFTWARE: FastSEQ for Windows Version 3.0
TURNGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                               ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-979-159-208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; ORGANISM: Homo sapiens
US-10-287-436A-489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-287-436A-1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 64
US-10-287-436A-489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                      Query Match

100.0%; Score 54; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 54; DB 5; Length 660; 100.0%; Pred. No. 1.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 63
US-10-979-159-208
US-10-979-159-208
Sequence 208, Application US/10979159
Publication No. US20050142138A1
GENERAL INPORMATION:
APPLICANT: Bread St. Croix
APPLICANT: Bread St. Croix
APPLICANT: Renach Kinzler
TITLE OF INVENTION: ENDOTHELIAL CELL EXPRESSION PATTERNS
FILE REPERENCE: 1107.00134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 25, Application US/10901417
; Sequence 25, Application US/10901417
; Publication No. US20050026836A1
; GENERAL INFORMATION:
; APPLICANT: Dack, Kevin N
; APPLICANT: Dack, Revin N
; APPLICANT: Huggins, Jonathan P
; APPLICANT: Huggins, Jonathan P
; APPLICANT: Huggins, Jonathan P
; APPLICANT: McIntosh, Fraser S
; APPLICANT: McIntosh, Fraser S
; APPLICANT: McIntosh, Praser S
; PRIOR FILING DATE: 2000-11-30
; PRIOR FILING DATE: 2000-11-30
; PRIOR FILING DATE: 1999-12-29
; NUMBER OF SEQ ID NOS: 60
; SOOFWARE: PatentIN Ver. 2.1
; LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/10/979,159
                     PRIOR FILING DATE: 2004-02-11
PRIOR APPLICATION NUMBER: EP 03025871
PRIOR FILING DATE: 2003-11-11
PRIOR FILING DATE: 2003-11-10
PRIOR FILING DATE: 2003-11-10
PRIOR FILING DATE: 2003-11-10
PRIOR FILING DATE: 2003-06-18
NUMBER OF SEQ ID NOS: 149
SEQ ID NO 131
SEQ ID NO 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
US-10-872-198-131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-901-417-25
                                                                                                                                                                                                                                                                                    TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 100.0%; Score 54; DB 5; Length 660; Best Local Similarity 100.0%; Pred. No. 1.5; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1185, Application US/10287436A
Sequence 1185, Application US/10287436A
Sequence 1185, Application US. US20050202421A1
GENERAL INFORMATION:
TITLE OF INVENTION: METHOD FOR DIAGNOSIS AND TREATMENT OF TITLE OF INVENTION: METHOD FOR DIAGNOSIS AND TREATMENT OF TITLE OF INVENTION: METHOD FOR DIAGNOSIS AND TREATMENT OF TITLE REPRENCE: 10872.51469
CURRENT APPLICATION NUMBER: US/10/287,436A
CURRENT APPLICATION NUMBER: US 60/336,220
PRIOR FILING DATE: 2001-10-31
NUMBER OF SEQ ID NOS: 1446
SEQ ID NO 1185
LENGTH: 660
                                                                                                                                                                                     100.0%; Score 54; DB 5; Length 660; 100.0%; Pred. No. 1.5;
                                   0; Indels
```

ö

ö

```
US-10-115-223-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -10-402-212-30
                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                PUBLICATION NO. US20050175581A1
SEQUENCE 131, Application US/11021951
PUBLICATION NO. US20050175581A1
GENERAL INFORMATION:
APPLICANT: HAUPTS, Ulrich
APPLICANT: SCHEIDIG, Andreas
APPLICANT: SCHEIDIG, Andreas
APPLICANT: SCHEIDIG, Andreas
APPLICANT: COCO, Wayne Michael
TITLE OF INVENTION: And Diagnostic Use Thereof
FILE OF INVENTION UNMER: 10/872,198
PRIOR FILING DATE: 2004-02-11
PRIOR FILING DATE: 2004-02-11
PRIOR FILING DATE: 2004-02-11
PRIOR FILING DATE: 2003-11-11
PRIOR FILING DATE: 2003-11-11
PRIOR FILING DATE: 2003-11-11
PRIOR FILING DATE: 2003-11-11
PRIOR FILING DATE: 2003-11-10
PRIOR FILING DATE: 2003-11-10
PRIOR FILING DATE: 2003-16-18
PRIOR FILING DATE: 2003-16-18
PRIOR FILING DATE: 2003-6-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                            100.0%; Score 54; DB 5; Length 660; 100.0%; Pred. No. 1.5:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 100.0%; Score 54; DB 6; Length 660; Best Local Similarity 100.0%; Pred. No. 1.5; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 14, Application US/11031488
Publication No. US20050239710A1
GENERAL INFORMATION:
APPLICANT: Quirk, Stephen
APPLICANT: Quirk, Schail
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
FILE REFERENCE: 1443.034US1
CURRENT APPLICATION NUMBER: US/11/031,488
CURRENT FILING DATE: 2005-01-07
PRIOR FILING DATE: 2005-01-07
PRIOR FILING DATE: 2002-05-21
                                                                                                                                               0; Indels
                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 191
SOFTWARE: PatentIn version 3.1
SEQ ID NO 131
LENGTH: 660
                                                                       Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                    100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100 PRCGNPDVA 108
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-287-436A-1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens
US-11-021-951-131
                                                                                                                                                                                         1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                         US-11-021-951-131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-11-031-488-14
                                                                                                                                                                                            ሯ
                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
APPLICANT: Brooks, Peter
APPLICANT: Brooks, Peter
APPLICANT: Cheresh, David A.
TITLE OF INVENTION: METHODS AND COMPOSITIONS USEFUL FOR INHIBITION OF
TITLE OF INVENTION: ANGIOGENESIS
TITLE OF INVENTION: ANGIOGENESIS
FILE REPERENCE: MERO049S
CURRENT PILING DATE: 1090-04-02
PRIOR PLILING DATE: 1999-03-23
PRIOR APPLICATION NUMBER: US/09/194,468
PRIOR FILING DATE: 1996-05-31
PRIOR PLILING DATE: 1997-05-30
NUMBER: PCT/US97/09158
SOFTWARE: PATENTING UNIVER: 2.1
SSOFTWARE: PATENTING UNIVER: 2.1
                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gapa
                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 54; DB 4; Length 663; 100.0%; Pred. No. 1.5;
                                                                                                                                                                                                                                                                                                               100.0%; Score 54; DB 6; Length 660; 100.0%; Pred. No. 1.5;
                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Brooks, Peter C.
APPLICANT: Cheresh, David A.
APPLICANT: Cheresh, David A.
APPLICANT: Silletti, Steven A.
APPLICANT: Silletti, Steven A.
APPLICANT: The Scripps Research Institute
TITLE OF INVENTION: METHODS FOR INHIBITION OF ANGIOGENESIS
FILE REFERENCE: TSRI-419.3
CURRENT APPLICATION NUMBER: US/10/402,212
CURRENT FILING DATE: 2003-03-28
PRIOR APPLICATION NUMBER: 10/115,223
PRIOR FILING DATE: 2002-04-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
; PRIOR APPLICATION NUMBER: US 10/032,376; PRIOR FILING DATE: 2001-12-21; PRIOR FILING DATE: 2001-18-05; PRIOR FILING DATE: 2001-08-16; PRIOR FILING DATE: 2001-08-16; NUMBER OF SEQ ID NOS: 20; SOFTWARE: FastSEQ for Windows Version 4.0; SEQ ID NO 14; LENGTH: 660; TYPE: PRT
; ORGANISM: HOMO Sapiens
US-11-031-488-14
                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 30, Application US/10115223
Publication No. US20030176334A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 30, Application US/10402212
Publication No. US20040063790A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 100.
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                              100 PRCGNPDVA 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Gallus gallus US-10-115-223-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97 PRCGNPDVA 105
                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 PRCGNPDVA 9
```

```
PEATURE:
NAME/KEY: DOMAIN
LOCATION: (579)...(616)

OTHER INFORMATION: Type II fibronectin collagen-binding domain proteins domain
OTHER INFORMATION: identified by eMATRIX, accession number BL00023, p-value=4.682e-;
OTHER INFORMATION: raw score of 24.31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: (271)...(451)
OTHER INFORMATION: Matrixin domain identified by PFam, accession name
OTHER INFORMATION: Peptidase_M10, E-value=3.7e-109, PFam score of 376.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 100.0%; Score 54; DB 5; Length 1330; Best Local Similarity 100.0%; Pred. No. 3; Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                           Query Match

100.0%; Score 54; DB 4; Length 663;
Best Local Similarity 100.0%; Pred. No. 1.5;
Matches 9; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 70
US-10-450-763-54358

Sequence 54358, Application US/10450763

FUDLICATION NO. US20050196754A1

GENERAL INFORMATION:

APPLICANT: Hyseq, Inc

TITLE OF INVENTION:

CURRENT APPLICATION NUMBER: US/10/450,763

CURRENT PILING DATE: 2003-06-11

PRIOR APPLICATION NUMBER: PCT/US01/08631

PRIOR PILING DATE: 2000-03-30

PRIOR PILING DATE: 2000-03-31

SPIOR PILING DATE: 2000-03-31

NUMBER OF SEQ ID NOS: 60736

SOFTWARE: CUSTOM

SEQ ID NO 54358

LENGTH: 1330
PRIOR APPLICATION NUMBER: 09/194,468
PRIOR FILING DATE: 1999-03-23
PRIOR PILING DATE: 1999-03-23
PRIOR PILING DATE: 1997-05-30
PRIOR FILING DATE: 1997-05-30
PRIOR PILING DATE: 1996-05-31
PRIOR APPLICATION NUMBER: 60/015,869
PRIOR PILING DATE: 1996-05-31
NUMBER OF SEQ ID NOS: 47
SOFTWARE: PSESEE OF WINDOWS VERSION 4.0
SEQ ID NO 30
LENGTH: 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Search completed: February 21, 2006, 18:35:36 Job time: 70.1579 secs
                                                                                                                                                                                                                                                                                                                                    ORGANISM: Gallus gallus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97 PRCGNPDVA 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            318 PRCGNPDVA 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
NAME/KEY: DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-450-763-54358
                                                                                                                                                                                                                                                                                                                                                                   US-10-402-212-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
```

GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd. Copyright

OM protein - protein search, using sw model

February 21, 2006, 08:21:13; Search time 5.92105 Seconds (without alignments) 21.644 Million cell updates/sec Run on:

US-10-601-059-12 54 1 PRCGNPDVA 9 Perfect score: Sequence: BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

108093 seqs, 14239677 residues Searched:

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

Published Applications AA New:*

1: /cgn2_6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*
2: /cgn2_6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*
3: /cgn2_6/ptodata/1/pubpaa/USO7_NEW_PUB.pep:*
4: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
5: /cgn2_6/ptodata/1/pubpaa/USIO_NEW_PUB.pep:*
6: /cgn2_6/ptodata/1/pubpaa/USIO_NEW_PUB.pep:*
7: /cgn2_6/ptodata/1/pubpaa/USIO_NEW_PUB.pep:*
8: /cgn2_6/ptodata/1/pubpaa/USIO_NEW_PUB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

					SUMMARIES			
i		*						
Result	Score	Match	Query Match Length	ä	Ę	Description	_	
)			1			i ! !	!
т	54	100.0	099	7	US-11-186-284-125	Sequence 1	125,	App
7	54	100.0	708	ø	US-10-821-234-917	Seguence 9	917,	App
e	45	83.3	19	9	US-10-503-575-150		150,	App
4	45	83.3	267	9	US-10-995-561-542		542,	App
2	45	83.3	267	7	US-11-186-284-129		129,	App
9	45	83.3	469	7	US-11-186-284-119		119,	App
7	45	83.3	483	7	US-11-037-243-79		79,	Appl
80	41	75.9	444	7	US-11-043-788-244		244,	App
0	41	75.9	477	7	US-11-186-284-127	Sequence 1	127,	App
10	41	75.9	477	7	US-11-043-788-243		243,	App
11	41	75.9	513	9	US-10-131-826A-192		192,	App
12	41	75.9		φ	US-10-995-561-566		566,	App
13	38	70.4		7	US-11-043-788-278	Sequence 2	278,	App
14	38	70.4		7	US-11-043-788-277		277,	App
15	38	70.4		7	US-11-043-788-276		276,	App
16	38	70.4	470	7	US-11-186-284-123		123,	3, App
17	38	70.4		7	US-11-174-150-45		45, 7	App1
18	38	70.4	707	7	US-11-186-284-132		132,	App
19	38	70.4		7	US-11-044-640-2		2, A	ppli
20	38	70.4		7	US-11-043-788-275		275,	App
21	37	68.5		9	US-10-821-234-1654		1654,	Ap,
22	37	68.5		7	US-11-186-284-121		121,	App
23	37	68.5		7	US-11-090-439-58	Sequence 5	58, 1	Appl
24	37	68.5		7	US-11-169-041-130	Sequence 1	130,	App
25	37	68.5	607	7	US-11-080-991-88		88,	Appl

Sequence 5128, Apple Sequence 17, Appl Sequence 142, Appl Sequence 142, Appl Sequence 3179, Appl Sequence 3199, Appl Sequence 3100, Appl Sequence 310, Appl Sequence 117, Appl Sequence 311, Appl Sequence 314, Appl Sequence 5744, Appli
US-10-467-5528 US-11-067-121-7 US-11-067-121-7 US-11-131-826A-142 US-10-793-626-306 US-11-793-626-306 US-10-793-626-3092 US-10-793-626-3092 US-10-793-626-3092 US-10-793-626-3092 US-10-793-626-3092 US-10-05-877-304 US-10-05-877-318 US-10-055-877-317 US-10-055-877-318 US-11-055-877-318 US-11-055-877-318 US-11-055-877-318 US-11-055-877-318
011001000000000000000000000000000000000
290 1018 1038 1038 1036 249 249 2496 450 450 450 660 675 675 675 875 875 875 875 875 875 875 875 875 8
666.77 666.77 667.77 67.
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

### ALIGNMENTS

APPLICANT: Berger, Allison
APPLICANT: Berger, Allison
APPLICANT: Berger, Allison
APPLICANT: Guillemette, Tracy L.
APPLICANT: Schlegel, Robert
APPLICANT: Schlegel, Robert
APPLICANT: Monahan, John E.
APPLICANT: Thibodeau, Stephen N.
APPLICANT: Thibodeau, Stephen N.
APPLICANT: Hibodeau, Stephen N.
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
TITLE OF INVENTION: NOVEL GENES, COMPOSITION, ASSESSMENT, PREVENTION,
TITLE OF INVENTION: NOVEL GENES, COLON CANCER
TITLE OF INVENTION: NOVEL STEPHEN SERVICANTON NOWBER: US/11/186,284
CURRENT PILING DATE: 2005-07-21
PRIOR PLILING DATE: 2002-01-21
PRIOR PLILING DATE: 2002-11-21
PRIOR PLILING DATE: 2002-12-10
PRIOR PLILING DATE: 2002-05-20
NUMBER OF SEQ ID NOS: 228
SOFTWARE: FEBSER FOR WINGOWS VERSION 4.0
SEQ ID NO 125
LENGTH: 660 Sequence 125, Application US/11186284
Publication No. US20050266493A1
GENERAL INFORMATION:
APPLICANT: Willennium Pharmaceuticals, Inc.
APPLICANT: Berger, Allison
APPLICANT: Guillemette, Tracy L.
APPLICANT: Kamatkar, Shubhangi Homo Sapiens

Gaps ô Query Match 100.0%; Score 54; DB 7; Length 660; Best Local Similarity 100.0%; Pred. No. 0.042; Matches 9; Conservative 0; Mismatches 0; Indels

US-11-186-284-125

ö

ઠે 셤 RESULT 2 US-10-821-234-917

; Sequence 917, Application US/10821234 ; Publication No. US20050255114A1

```
GENERAL INFORMATION:

APPLICANT: Millennium Pharmaceuticals, Inc.

APPLICANT: Berger, Allison

APPLICANT: Guillemette, Tracy L.

APPLICANT: Guillemette, Tracy L.

APPLICANT: Schlegel, Robert

APPLICANT: Schlegel, Robert

APPLICANT: Thiobodeau, Stephen N.

APPLICANT: Monahan, John E.

APPLICANT: Monahan, John E.

APPLICANT: Monahan, John E.

TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION: TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PRICE REFERENCE: MPMO1-029P2RNM

TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PRICE REFERENCE: MPMO1-029P2RNM

TITLE OF INVENTION: METHODS FOR IDENTIFICATION NUMBER: US (0/301,030)

FILE REFERENCE: MPMO1-029P2RNM

CURRENT APPLICATION NUMBER: US (0/361,978

PRIOR FILING DATE: 2002-01-12-10

PRIOR FILING DATE: 2002-01-12-10

PRIOR FILING DATE: 2002-01-12-10

PRIOR FILING DATE: 2002-05-20

NUMBER OF SEQ ID NOS: 228

SEQ ID NO 129

LENGTH: 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                          Score 45; DB 6; Length 267;
Pred. No. 0.61;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 45; DB 7; Length 267; Pred. No. 0.61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Millennium Pharmaceuticals, Inc.
APPLICANT: Berger, Allison
APPLICANT: Guillemette, Tracy L.
                   NUMBER OF SEQ ID NOS: 85702
SOFTWARE: PESELSEQ for Windows Version 4.0
SEQ ID NO 542
LENGTH: 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Sequence 119, Application US/11186284; Publication No. US20050266493A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 129, Application US/11186284
Publication No. US20050266493A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Berger, Allison
Guillemette, Tracy L.
Kamatkar, Shubhangi
Schlegel, Robert
Monahan, John E.
                                                                                                                                                                                                               83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         83.3%;
                                                                                                                                                                                                                                                             8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8; Conservative
                                                                                                                                          ORGANISM: Homo sapiens
US-10-995-561-542
                                                                                                                                                                                                                                                                                                                                                           PRCGVPDVA 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo Sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              85 PRCGVPDVA 93
                                                                                                                                                                                                                                                                                                               1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVA 9
CURRENT FILING DATE:
                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
Matches 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
US-11-186-284-119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-11-186-284-129
                                                                                                                   TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 3

US-10-503-575-150

Sequence 150, Application US/10503575

Publication No. US2005024482341

GENERAL INFORMATION:
APPLICANT: Drijfhout, Jan Wouter

APPLICANT: Van Veelen, Petrus Antonius

APPLICANT: Van Veelen, Petrus Antonius

TITLE OF INVENTION: NOVEL EDITORES FOR CELIAC DISEASE AND AUTOIMMUNE DISEASES, METHOD

TITLE OF INVENTION: DFTECTING THOSE AND NOVEL NON-ANTIGENIC FOOD COMPOUNDS

TITLE OF INVENTION: DRIPER: US/10/503,575

CURRENT PILLING DATE: 2004-08-04

PRIOR FILLING DATE: 2003-02-04

PRIOR FILLING DATE: 2003-02-04

PRIOR FILLING DATE: 2003-02-04

PRIOR FILLING DATE: 2003-02-04

NUMBER OF SEQ ID NOS: 340

SOFTHARE: Patentin version 3.1

SEQ ID NO 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: CREGILL, Michele et al.
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: CARDIOVASCULAR DISORDERS AND DRUG RESPONSE, METHODS OF
TITLE OF INVENTION: DETECTION AND USES THEREOF
FILE REFERENCE: CLO01559
CURRENT APPLICATION NUMBER: US/10/995,561
              APPLICANT: Labat, Ivan
APPLICANT: Stache-Crain, Birgit
APPLICANT: Stache-Crain, Birgit
APPLICANT: Stache-Crain, Susan
APPLICANT: Tang, Y. Tom
TILLE OF INVENTION: Methods for Diagnosis and Treatment of Preeclampsia
FILE REFERENCE: 821A
CURRENT APPLICATION NUMBER: US/10/821,234
CURRENT FILING DATE: 2004-04-07
PRIOR APPLICATION NUMBER: US 60/462,047
PRIOR APPLICATION NUMBER: US 60/462,047
NUMBER OF SEQ ID NOS: 1704
SEQ ID NO 917
LENGTH: 708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 54; DB 6; Length 708; 100.0%; Pred. No. 0.045;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    83.3%; Score 45; DB 6; Length 19; 88.9%; Pred. No. 0.05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 4
US-10-955-561-542
Sequence 542, Application US/10995561
Publication No. US20050272054A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               148 PRCGNPDVA 156
                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRCGVPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
Matches 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                       US-10-821-234-917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-503-575-150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
```

Gaps . 0

Thibodeau, Stephen N.

```
APPLICANT: Compugen Ltd
TITLE OF INVENTION: NOVEL NUCLEOTIDE AND AMINO ACID SEQUENCES, AND ASSAYS AND METHODS
TITLE OF INVENTION: THEREOF FOR DIAGNOSIS OF ENDOMETRIOSIS
FILE REFERENCE: 1847.1.006
CURRENT APPLICATION NUMBER: US/11/043,788
CURRENT FILING DATE: 2005-01-27
NUMBER OF SEQ ID NOS: 506
SEQ ID NO 244
LENGTH: 444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IDENTIFICATION, ASSESSMENT, PREVENTION, AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 127, Application US/11186284

| CENERAL INFORMATION: | GENERAL INFORMATION: |
| APPLICANT: Millennium Pharmaceuticals, Inc. |
| APPLICANT: Millennium Pharmaceuticals, Inc. |
| APPLICANT: Berger, Allison |
| APPLICANT: Schlegel, Robert |
| APPLICANT: Schlegel, Robert |
| APPLICANT: Schlegel, Robert |
| APPLICANT: Monahan, John E |
| APPLICANT: MONEL GENES, COMPOSITIONS, KITS, AND |
| TITLE OF INVENTION: HERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF INVENTION: THERAPY OF COLON CANCER |
| TITLE OF 
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 41; DB 7; Length 444;
Pred. No. 4.8;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 41; DB 7; Length 477;
Pred. No. 5.1;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 243, Application US/11043788; Publication No. US20060014166A1; GENERAL INFORMATION: APPLICANT: Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        75.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 75.9%;
Best Local Similarity 87.5%;
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 75.9
Best Local Similarity 87.5
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    57 PRCGVPDV 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90 PRCGVPDV 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 PRCGNPDV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 PRCGNPDV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 10
US-11-043-788-243
                                                                                                                                                                                                                                                                                                                                                                                             US-11-043-788-244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-11-186-284-127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
APPLICANT: Burgart, Lawrence J.
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
TITLE OF INVENTION: NOVEL GENES, COMPOSITION, ASSESSMENT, PREVENTION, AND
TITLE OF INVENTION: THERAPY OF COLON CANCER
FILE REPERENCE: Whon 1-02P2RNM
FILE REPERENCE: Whon 1-02P2RNM
CURRENT APPLICATION NUMBER: US/11/186,284
CURRENT PILING DATE: 2002-07-21
PRIOR PILING DATE: 2002-11-21
PRIOR PILING DATE: 2002-11-210
PRIOR PILING DATE: 2002-03-05
PRIOR PILING DATE: 2001-03-05
PRIOR PILING DATE: 2001-03-05
PRIOR PILING DATE: 2001-03-05
PRIOR PILING DATE: 2002-03-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 45; DB 7; Length 483; Pred. No. 1.1; 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 45; DB 7; Length 469; Pred. No. 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-11-037-243-79

Sequence 79, Application US/11037243

Sequence 79, Application US/11037243

Publication No. US20050287546A1

GENERAL INFORMATION:

APPLICANT: PLOWMAN, GREGORY

APPLICANT: GHARYDCZAK, GLEN

APPLICANT: CHARYDCZAK, GLEN

APPLICANT: GUNERAND, SUCHA

TITLE OF INVENTION: NOVEL PROTEASES

FILE REFERENCE: 038602/1214

CURRENT APPLICATION NUMBER: US/09/888,615

PRIOR FILING DATE: 2001-06-26

PRIOR FILING DATE: 2000-06-26

NUMBER OF SEQ ID NOS: 150

SOFTWARE: Patentin Ver: 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-11-043-788-244; Sequence 244, Application US/11043788; Publication No. US20060014166A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 88.9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 88.5
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98 PRCGVPDVA 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         90 PRCGVPDVA 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo Sapiens US-11-186-284-119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 PRCGNPDVA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-11-037-243-79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
```

셤

ö

Barre Star

RESULT 8

g

```
; ORGANISM: Homo Sapien
US-10-131-826A-192
                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
TITLE OF INVENTION: NOVEL NUCLECTIDE AND AMINO ACID SEQUENCES, AND ASSAYS AND METHODS TITLE OF INVENTION: THEREOF FOR DIAGNOSIS OF ENDOMETRIOSIS
FILE REFERENCE: 1847.1006
CURRENT APPLICATION NUMBER: US/11/043,788
CURRENT FILING DATE: 2005-01-27
NUMBER OF SEQ ID NOS: 506
SEQ ID NO 233
LENGTH: 477
                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CUMRENT FILING DATE: 108/10/131,826A

PRIOR APPLICATION NUMBER: 60/049911

PRIOR FILING DATE: 1997-06-18

PRIOR FILING DATE: 1997-06-18

PRIOR FILING DATE: 1997-08-26

PRIOR FILING DATE: 1997-08-26

PRIOR FILING DATE: 1997-09-17

PRIOR FILING DATE: 1997-09-17

PRIOR FILING DATE: 1997-09-17

PRIOR FILING DATE: 1997-09-17

PRIOR PLING DATE: 1997-09-17

PRIOR PLING DATE: 1997-09-17

PRIOR PLING DATE: 1997-09-17

PRIOR PLING DATE: 1997-09-17

PRIOR FILING DATE: 1997-09-17

PRIOR PLING DATE: 1997-09-18

PRIOR FILING DATE: 1997-09-18

PRIOR FILING DATE: 1997-09-19

PRIOR PLING DATE: 1997-09-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3330RIC128
                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                       Score 41; DB 7; Length 477; Pred. No. 5.1; 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-131-826A-192

S. Sequence 192, Application US/10131826A

Publication No. US20050245730A1

GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                       75.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Stewart, Timothy A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gerritsen, Mary E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Watanabe, Colin K
Wood, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Baker, Kevin P. APPLICANT: Beresini, Maureen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Desnoyers, Luc
Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Godowski, Paul J.
Gurney, Austin L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sherwood, Steven
                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 87.5
East T, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Smith, Victoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gao, Wei-Qiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DeForge, Laura
                                                                                                                                                                                                                            ; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-043-788-243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tumas, Daniel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRCGVPDV 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PRCGNPDV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
```

```
Sequence 278, Application US/11043788
Publication No. US2006001416641
GENERAL INFORMATION:
APPRIATION:
TITLE OF INVENTION: THEREOF FOR DIAGNOSIS OF ENDOMETRIOSIS
TITLE OF INVENTION: THEREOF FOR DIAGNOSIS OF ENDOMETRIOSIS
TITLE REFERENCE: 1847.1006
CURRENT APPLICATION NUMBER: US/11/043,788
CURRENT FILING DATE: 2005-01-27
NUMBER OF SEQ ID NOS: 506
SEQ ID NO 278
LENGTH: 225
                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                            Sequence S66, Application US/10995561
Publication No. US20050272054A1
GENERAL INFORMATION.
GENERAL INFORMATION.
TITLE OF INVENTION: CARDIOVASCULAR DISORDERS AND DRUG RESPONSE, METHODS OF TITLE OF INVENTION: CARDIOVASCULAR DISORDERS AND DRUG RESPONSE, METHODS OF TITLE OF INVENTION: DETECTION AND USES THEREOF
TITLE OF INVENTION: DETECTION AND USES THEREOF
TITLE REFERENCE: CLO01559
CURRENT APPLICATION NUMBER: US/10/995,561
CURRENT FILING DATE: 2004-11-24
NUMBER OF SEQ ID NOS: 85702
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 566
LENGTH: 513
                                                   Gaps
                                                 ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 75.9%; Score 41; DB 6; Length 513; Best Local Similarity 87.5%; Pred. No. 5.5; Matches 7; Conservative 0; Mismatches 1. Trans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 38; DB 7; Length 225;
Pred. No. 8.1;
1; Mismatches 1; Indels
  Length 513;
                                                 1; Indels
    DB 6;
  Score 41; DB 6
Pred. No. 5.5;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 14
US-11-043-788-277
Sequence 277, Application US/11043788
Publication No. US20060014166A1
GENERAL INFORMATION:
Query Match 75.9%;
Best Local Similarity 87.5%;
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           70.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97 PRCGVPDL 104
                                                                                                                                     89 PRCGVPDV 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       89 PRCGVPDV 96
                                                                                           1 PRCGNPDV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 PRCGNPDV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 PRCGNPDV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                      RESULT 12
US-10-995-561-566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-11-043-788-278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-11-043-788-278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-995-561-566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
```

```
APPLICANT: Compugen Ltd
TITLE OF INVENTION: NOVEL NUCLECTIDE AND AMINO ACID SEQUENCES, AND ASSAYS AND METHODE
TITLE OF INVENTION: THEREOF FOR DIAGNOSIS OF ENDOMETRIOSIS
FILE REFERENCE: 1847.1006
CURRENT APPLICATION NUMBER: US/11/043,788
CURRENT PILING DATE: 2005-01-27
NUMBER OF SEQ ID NOS: 506
SEQ ID NO 277
LENGTH: 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 276, Application US/11043788
Publication No. US20060014166A1
GENERAL DEPOSITION OF US20060014166A1
GENERAL COMPUSED Ltd
TITLE OF INVENTION: NOVEL NUCLECTIDE AND AMINO ACID SEQUENCES, AND ASSAYS AND METHODS
TITLE OF INVENTION: THEREOF POR DIAGNOSIS OF ENDOMETRIOSIS
TITLE OF INVENTION: 1447.1006
CURRENT APPLICATION NUMBER: US/11/043,788
CURRENT FILING DATE: 2005-01-27
NUMBER OF SEQ ID NOS: 506
SEQ ID NO 276
LENGTH: 360
                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                           Query Match 70.4%; Score 38; DB 7; Length 276; Best Local Similarity 75.0%; Pred. No. 9.9; Matches 6; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 70.4%; Score 38; DB 7; Length 360; Best Local Similarity 75.0%; Pred. No. 13; Matches 6; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Search completed: February 21, 2006, 08:26:29 Job time : 6.92105 secs
                                                                                                                                                                                                               TYPE: PRT
CRGANISM: Homo sapiens
US-11-043-788-277
                                                                                                                                                                                                                                                                                                                                                                                                                                 |||| ||:
97 PRCGVPDL 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Homo sapiens
US-11-043-788-276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97 PRCGVPDL 104
                                                                                                                                                                                                                                                                                                                                                                                                           1 PRCGNPDV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 PRCGNPDV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-11-043-788-276
                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
```

The Contract

This Page Blank (uspto)

GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd. Copyright

sw model - protein search, using OM protein Run on:

February 21, 2006, 07:54:15; Search time 15.5263 Seconds (without alignments) 61.970 Million cell updates/sec

US-10-601-059-13 60

1 NYNFFPRKPK 10 Title: Perfect score: Sequence: Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Searched:

Total number of hits satisfying chosen parameters: 283416 seqs, 96216763 residues

seq length: 0 seq length: 200000000 88 Minimum I Maximum I

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries 1: pirl: * 2: pir2: * 3: pir3: * 4: pir4: * PIR 80:* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.

SUMMARIES

[†] y	Description	gelatinase A (EC	gelatinase A (EC	gelatinase A (EC	4	gelatinase A (EC	gelatinase (EC 3.4	NADP-reducing hydr	hypothetical prote	homeotic protein	LIM domain transcr	homeotic protein	homeotic protein	homeotic protein	hypothetical prote	ical			mating factor MAT1	conserved hypothet	homeotic protein	dolichyl-diphospho	dolichyl-diphospho	oligosaccharyltran	hypothetical prote		_	F14L17.20 protein	CT288 hypothetica	
SUMMARIES	ID	A28153	S70365	A42496	S34780	S46492	A23715	F72430	H71086	S23802	G01507	158187	148186	I48637	S55948	H69141	A42915	S66173	S34811	B75319	150375	A54127	A44654	A45139	C86729	T15933	JC5743	H86278	B86499	
	DB	-	~	7	7	Н	7	~	7	н	~	-	Н	-	7	~	7	7	~	7	Н	7	~	~	7	~	~	~	~	
	Length	999	662	662	662	663	31	176	121	403	404	406	406	406	518	957	1015	343	343	360	406	413	414	445	883	449	483	564	576	
de	Query Match	100.0	100.0	100.0	100.0	100.0	80.0	66.7	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	61.7	61.7	61.7	61.7	
	Score	-09	9	9	9	9	48	40	39	39	39	39	39	39	39	39	39	38	38	38	38	38	38	38	38	37	37	37	37	
	Result No.	-	7	٣	4	ß	9	7	80	0	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27	28	

F22D16.20 protein conserved hypothet gene 26 protein probable lysophosp conserved hypothet transcription regu probable sideropho hypothetical prote conserved hypothet zinc metalloprotein conserved hypothet hypothet all protein hypothetical protein conserved hypothet	conserved hypothet hypothetical prote conserved hypothet
B86158 C81546 WZB826 S53035 B70158 A46644 A46644 T19452 T19452 A87687 B73372	AB3046 B98240 C95287
0000000000000	1000
543 200 300 300 300 400 400 400 400 400 400 4	625 625 660
60.00 60.00 60.00 60.00 60.00 60.00 60.00	0.00
	9999
9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	1 44 44 1 10 4 10

### ALIGNMENTS

RESULT 1

Gelatinase A (EC 3.4.24.24) precursor - human NiAlternate names: collagenase type IV; matrix metalloproteinase 2 (MMP2); progelatinase C; Species: Homo sapiens (man)
S; Ciller, Last (S)
C; Manuer, B.L.; Grant, G.A.; Seltzer, J.L.; K
J; Biol. (Chem. 263, 6579-6587, 1988
A; Title: H-ras oncogene-transformed human bronchial epithelial cells (TBE-1) secrete a s
A; Ricerence number: A28153; MUID:88198218; PMID:2834383

A Molecule type: mRNA
A; Residues: 30-660 <CCL.
A; Residues: 30-660 <CCL.
A; Residues: 30-660 <CCL.
A; Cross-references: UNIPROT: P08253; UNIPARC: UPI0000172CE7; GB:J03210; NID:g180670; PIDN: R; Huhtela, P.; Eddy, R.L.; Fan, Y.S.; Byers, M.G.; Shows, T.B.; Tryggvason, K.
Genomics 6, 554-559, 1990
A; Title: Completion of the primary structure of the human type IV collagenase preproenzy A; Reference number: A34202; MUID:90228972; PMID:2158484

A; Reaidues 1.51 cHU2.

A; Residues 1.51 cHU2.

A; Residues 1.51 cHU2.

A; Residues 1.51 cHU2.

A; Cross-references UNIPARC:UPI000016A6E3; GB:M33789; NID:G180600; PIDN:AAA52027.1; PID: R; HUMtala, P.; Chow, L.T.; Tryggvason, K.
J. Biol. Chem. 265, 11077-11082, 1990

A; Title: Structure of the human type IV collagenase gene.

A; Reference number: A42225; MUID:90293047; PMID:2162831

A; Reference number: A42225

A; Reference number: A42225

A; Reference number: A42225

A; Residues: 1-51;220-393 cHUH>

A; Residues: 1-51;220-393 cHUH>

A; Residues: 1-51;220-393 cHUH>

A; Residues: UNIPARC:UPI000016A6E3; UNIPARC:UPI0000172CEB; GB:M55593; GB:J05471;

A; Cross-references: UNIPARC:UPI00016A6E3; UNIPARC:UPI0000172CEB; GB:M55593; GB:J05471;

A; Cross-references: UNIPARC:UPI00016A6E3; UNIPARC:UPI0000172CEB; GB:M55593; GB:J05471;

A; Residues: 1-51;220-393

A; Cross-references: UNIPARC:UPI00016A6E3; UNIPARC:UPI0000172CEB; GB:M55593; GB:J05471;

A; Residues: Los Complete amino acid nor the complete nucleotide sequence is given in R; Frisch, S:M; Reich, R; Collier, I.E.; Genrich, L.T.; Martin, G.; Goldberg, G.I.

Oncogene 5, 75-83, 1990

A; Title: Adenovirus EllA represses procease gene expression and inhibits metastasis of hu A; Accession: A60187; MUID:90206614; PMID:2157183

A;Status: not compared with conceptual translation A;Molecule type: DNA A;Residues: 1-58 <FRI>

A,Cross-references: UNIPARC:UP10000172CE9
R;Okada, Y.; Morodomi, T.; Enghild, J.J.; Suzuki, K.; Yasui, A.; Nakanishi, I.; Salvesen
R;Okada, Y.; Morodomi, T.; Enghild, J.J.; Suzuki, K.; Yasui, A.; Nakanishi, I.; Salvesen
R;Okada, Y.; Morodomi, T.; Enghild, J.J.; Suzuki, K.; Yasui, A.; Nakanishi, I.; Salvesen
A;Title: Matrix metalloprotesinase 2 from human rheumatoid synovial fibroblasts. Purifica
A;Reference number: S13858; MUID:91099351; PMID:2269296

A;Residues: 30-45;110-124 <OKA>
A;Cross-references: UNIPARC:UPI0000172CEA; UNIPARC:UPI0000172CEB
R;Crabbe, T.; Ioannou, C.; Docherty, A.J.P.
Bur. J. Biochem. 218, 431-438, 1993

```
ilarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Genetics:
C;Genetics:
A;Gene:
C;Genetics:
A;Gene:
A;Map position:
16(313-1643)
A;Introns:
15/3; 127/2; 178/1; 220/1; 278/1; 336/1; 394/1; 446/1; 491/2; 537/1; 590/2; 6
C;Punction:
A;Description:
A;De
A; Title: Human progelatinase A can be activated by autolysis at a rate that is concentral A; Reference number: S39436; MUID:94094834; PMID:8269931
A; Accession: S39436
A; Molocule type: protein
A; Residues: 30-44;444-456 <CR2>
A; Cross-references: UNIPARC:UPI00000723BF; UNIPARC:UPI0000172CEC
A; Stetler-Stevenson, WG; Kruzach, H.C.; Wacher, M.P.; Margulies, I.M.K.; Liotta, L.A. J. Biol. Chem. 264, 1353-1356, 1989
A; Title: The activation of human type IV collagenase proenzyme. Sequence identification A; Reference number: A31480; MUID:89109136; PMID:2536363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: protein.
A; Residues: 110-115 cRNs.
A; Residues: 110-115 cRNs.
A; Cross-references: UNIPARC:UPI0000172CED
B; Brown, D.; Chwa, M.; Escobar, M.; Kenney, M.C.
B; Brown, D.; Chwa, M.; Escobar, M.; Kenney, M.C.
A; Brown, D.; Chwa, M.; Escobar, M.; Kenney, M.C.
A; Title: Characterization of the major matrix degrading metalloproteinase of human corne A; Reference number: A61498; MUID:91330998; PMID:1868885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AjExperimental source: corneal stroma
Riltch, Y.; Binner, S.; Nagase, H.
Biochem, J. 308, 645-651, 1995
AjTitle: Steps involved in activation of the complex of pro-matrix metalloproteinase 2
A;Reference number: S55327; MUID:95290003; PMID:772054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            F;469-660/Disulfide bonds: #status predicted
F;573,642/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 60; DB 1; Length 660; 100.0%; Pred. No. 0.0055; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A,Accession: A1480
A,Molecule type: protein
A,Rocession: A1140
A,Rolecule type: protein
A,Residues: 110-123 <STE>
A,CEGS-references: Constitution of the constitution 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Molecule type: protein
A;Residues: 'X',31,'X',33-46,'X',48-50,'Q'
A;Cross-references: UNIPARC:UPI0000172CEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Molecule type: protein
A;Residues: 110-114 <ITO>
A;Cross-references: UNIPARC:UPI0000172CEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Accession: A61498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

```
C;Accession: $70365
R;Matsumoto, S.; Katoh, M.; Watanabe, T.; Masuho, Y.
Biochim. Biophys. Acta 1307, 137-139, 1996
A;Title: Molecular cloning of rabbit matrix metalloproteinase-2 and its broad expression A;Reference number: $70365; WUID:96283805; PMID:8679695
                                                                                                                                                                                                                                                                                                                                                                                                          A; Accession: S70365
A; Status: preliminary
A; Rocession: S70365
A; Status: preliminary
A; Rocession: S70365
A; Status: preliminary
A; Residues: 1-662 < RMAT>
A; Residues: 1-662 < RMAT>
A; Residues: 1-662 < RMAT>
A; Cross-references: UNIPROT: P50757; UNIPARC: UPI000012F23F; EMBL: D63579; NID: 9944816; PIDP
C; Superfamily: gelatinase A; fibronectin type II repeat homology < 2F1-
F; 233-274 Domain: fibronectin type II repeat homology < 2F2-
F; 234-390/ Domain: fibronectin type II repeat homology < 2F2-
F; 345-562/ Domain: fibronectin type II repeat homology < 2F2-
F; 345-562/ Domain: fibronectin type II repeat homology < 2F2-
F; 340-390/ A07, 413/ Binding site: zinc, catalytic (Cys, His, His, His, His) (inhibited) #status
F; 404/Active site: Glu #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C;Accession: A42496
R;Reponen, P.; Sahlberg, C.; Huhtala, P.; Hurskainen, T.; Thesleff, I.; Tryggvason, K.
Biol. Chem. 267, 7856-7862, 1992
A;Title: Molecular cloning of murine 72-kDa type IV collagenase and its expression durine A;Reference number: A42496; MUID:92218452; PMID:1373140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Status: preliminary
A;Golecule Type: mRNA
A;Residues: 1-662 <REP>
A;Cross references: UNIPROT:P33434; UNIPARC:UPI000002777E; GB:M84324; NID:G198465; PIDN:JA;Residues: 1-662 <REP>
A;Cross references: UNIPROT:P33434; UNIPARC:UPI000002777E; GB:M84324; NID:G198465; PIDN:JA;Cross references: UNIPROT:P33434; UNIPARC:UPI00002777E; GB:M84324; NID:G198465; PIDN:JA;Cross references: UNIPACH Extracted from NCB1 backbone (NCB1) backbone (NCB1)
C;Seywords: hydrolase; metalloproteinase; zinc; zymogen
F;233-274/Domain: fibronectin type II repeat homology <2FP>
F;231-332/Domain: fibronectin type II repeat homology <2FP>
F;349-390/Domain: fibronectin type II repeat homology <2FP>
F;349-390/Domain: fibronectin type II repeat homology <2FP>
F;349-390/Domain: fibronectin type II repeat homology <2FP>
F;465-662/Domain: fibronectin type II repeat homology <2FP>
F;463-403,407,413/Binding site: zinc, catalytic (Cys His, His, His, His) (inhibited) #status
F;404/Active site: Glu #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gelatinase A (EC 3.4.24.24) precursor - mouse
NiAlternate names: collagenase type IV, 72K
C:Species: Mus musculus (house mouse)
C:Species: 44-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004
gelatinase A (BC 3.4.24.24) precursor - rabbit N;Alternate names: matrix metalloproteinase-2; type IV collagenase C;Species: Oryctolagus cuniculus (domestic rabbit) C;Date: 21-Apr-1997 #sequence_revision 09-May-1997 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 662;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 662;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 60; DB 2; L
100.0%; Pred. No. 0.0055;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 60; DB 2;
100.0%; Pred. No. 0.0055;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
```

RESULT S34780

109 NYNFFPRKPK 118

```
R;Chen, J.M.; Aimes, R.T.; Ward, G.R.; Youngleib, G.L.; Quigley, J.P. J. Biol. Chem. 266, 5113-5121, 1991
A;Title: Isolation and characterization of a 70-kDa metalloprotease (gelatinase) that is A;Reference number: A23715; WUID:91161603; PMID:1848240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C;Species: Thermotoga maritima
C;Species: Thermotoga maritima
C;Date: 11-Jun-1999 #sequence_revision 11-Jun-1999 #text_change 09-Jul-2004
C;Accession: F72430
R;Nelson, K.E.; Clayton, R.A.; Gill, S.R.; Gwinn, M.L.; Dodson, R.J.; Haft, D.H.; Hickey Garrett, M.M.; Stewart, A.M.; Cotton, M.D.; Pratt, M.S.; Phillips, C.A.; Richardson, D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Residues: 1-176 <ARN>
A;Cross_references: UNIPROT:Q9WXM7; UNIPARC:UPI0000D3AC4; GB:AE001689; GB:AE000512; NID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Superfamily: NADH dehydrogenase (ubiquinone) I chain B; NADH dehydrogenase (ubiquinone C;Keywords: 2Fe-2S; metalloprotein P;98,103,139,143/Binding site: 2Fe-2S cluster (Cys) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rikawarabayasi, Y.; Sawada, M.; Horikawa, H.; Haikawa, Y.; Hino, Y.; Yamamoto, S.; Sekin M.; Ohfuku, Y.; Funahashi, T.; Tanaka, T.; Kudoh, Y.; Yamazaki, J.; Kushida, N.; Oguchi DNA, Res. 5, 55-76, 1998
A;Title: Complete sequence and gene organization of the genome of a hyper-thermophilic a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Title: Bvidence for lateral gene transfer between Archaea and Bacteria from genome seq
A;Reference number: A72200; MUID:99287316; PMID:10360571
                                                                                                                                                                                                                       gelatinase (EC 3.4.24.-) - chicken (fragments)
C;Species: Gallus gallus (chicken)
C;Date: 21-Feb-1992 #sequence_revision 21-Feb-1992 #text_change 21-Mar-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Species: Pyrococcus horikoshii
C;Date: 14-Aug-1998 #sequence_revision 14-Aug-1998 #text_change 12-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NADP-reducing hydrogenase, subunit A - Thermotoga maritima (strain MSB8)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 48; DB 2;
Pred. No. 0.038;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           hypothetical protein PH0957 - Pyrococcus horikoshii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. 6.1;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 40;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references: UNIPARC:UPI000017C00A
C;Keywords: hydrolase; metalloproteinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Experimental source: strain MSB8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                80.0%;
ilarity 88.9%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 77.0.
نحم 7; Conservative
          106 NYNFFPRKPK 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ||||||
YNFFPXKPK 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 YNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 YNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YNFFSTKPK 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nature 399, 323-329, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A, Molecule type: protein A, Residues: 1-31 < CHE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A, Status: preliminary
A, Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C, Accession: H71086
                                                                                                                                                                                                                                                                                                                                     Accession: A23715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Accession: F72430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Accession: A2371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Gene: TM0012
                                                   음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A, Status: preliminary
A, Molecule type: mRNA
A, Cross-references: UNIPARC. UPID000175D90; EMBL:X71466
C, Superfamily: gelatinase A, fibronectin type II repeat homology; hemopexin repeat homology
C, Keywords: hydrolase; metalloproteinase; zinc; zymogen
C, Keywords: hydrolase; metalloproteinase; zinc; zymogen
C, Keywords: his fibronectin type II repeat homology <2F1>
F, 233-274 Domain: fibronectin type II repeat homology <2F8>
F, 2949-139 (Domain: hemopexin repeat homology <2F8>
F, 349-190 (Domain: hemopexin repeat homology <2F8>
F, 349-340, 407, 413/Binding site: zinc, catalytic (Cys, His, His, His, His) (inhibited) #status
F, 403, 407, 413/Binding site: zinc, catalytic (His) (active) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                        A; Residues: 1-662 <LOV>
A; Residues: 1-662 <LOV>
A; Cross-references: UNIPROT: P33436; UNIPARC: UPI000012F240; EMBL: X71466; NID: G311750; PII
R; Marti, H.P.; McNeil, L.; Davies, M.; Martin, J.; Lovett, D.H.
Biochem. J. 291, 441-446, 1993
A; Title: Homology cloning of rat 72 kDa type IV collagenase: cytokine and second-messeng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status: preliminary
A;Molecule type: mRNA
A;Molecule type: mRNA
A;Molecule type: mRNA
A;Molecule type: mINPAMA
A;Molecule type: mINPAMA
A;Cross-references: UNIPROT: Q90611; UNIPARC: UPI000012F23E; EMBL: U07775; NID: g504475; PID
A;Note: in the authors' translation 205-Asp is shown after residue 201 and, consequently
A;Note: in the authors' translation 205-Asp is shown after residue 201 and, consequently
C;Superfamily: gelatinase A; fibronectin type II repeat homology; hemopexin repeat homol
C;Superfamily: gelatinase A; fibronectin type II repeat homology; hemopexin repeat homology
C;Keywords: hydrolase; metalloproteinase; zinc; zymogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       F;99,400,404,410/Binding site: zinc, catalytic (Cys, His, His, His) (inhibited) #status
F;400,404,410/Binding site: zinc, catalytic (His) (active) #status predicted
F;401/Active site: Glu #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gelatinase A (EC 3.4.24.24) precursor - chicken
C;Species: Gallus gallus (chicken)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: 846492
R;Aimes, R.T.; French, D.L.; Quigley, J.P.
R;Aimes, R.T.; French, D.L.; Quigley, J.P.
A;Title: Cloning of a 72 kba matrix metalloproteinase (gelatinase) from chicken embryo
A;Reference number: 846492; MUID:94280397; PMID:8010954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       F;67.216,391-443/Domain: matrix metalloproteinase homology #status atypical <MMP>
F;230-271/Domain: fibronectin type II repeat homology <2F1>
F;288-329/Domain: fibronectin type II repeat homology <2F8>
F;346-387/Domain: fibronectin type II repeat homology <2F8>
F;466-663/Domain: hemopexin repeat homology <PS>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
gelatinase A (EC 3.4.24.24) precursor - rat
N;Alternate names: collagenase type IV
C;Species: Rattus norvegicus (Norway rat)
C;Date: 22-Nov-1993 mergicus (Norway rat)
C;Accession: S34780; S32525
R;Lovett, D.H.
aubmitted to the EMBL Data Library, June 1993
A;Reference number: S34780
A;Accession: S34780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 60; DB 2; Length 662; 100.0%; Pred. No. 0.0055; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 663;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 60; DB 1; 100.0%; Pred. No. 0.0055;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
                                                                                                                                                                                                                                                                                                                       A;Status: preliminary A;Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Accession: S32525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Accession: S46492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
```

Matches

8 g ö

Gaps

.. 0

Matches

ő

Gaps

٥,

ö

Gaps

ö

~

```
A,Molecule type: mRNA
A,Residues: 1-406 «RES»
A,Cross-references: UNIPARC:UPI0000021621; GB:S71523; NID:g559635; PIDN:AAC60696.1; PID:
C,Genetics:
A,Gene: lim-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C;Superfamily: homeotic protein lim-1; homeobox homology; LIM metal-binding repeat homolog C;Superfamily: homeotic protein lim-1; homeobox; nucleus; transcription regulation; C;Keywords: DNA binding; duplication; embryo; homeobox; nucleus; transcription regulation; P;45-54/Domain: LIM metal-binding repeat homology <LIMI>
P;63-117/Domain: LIM metal-binding repeat homology <LIMI>
P;181-237/Domain: homeobox homology <HOX>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Reaidues: 1-406 <RES>
A;Cross-references: UNIPROT:P36199; UNIPARC:UPI0000021621; EMBL:X81407; NID:9587462; PIDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Superfamily: homeotic protein lim-1; homeobox homology; LIM metal-binding repeat homol: C;Superfamily: bNa binding; duplication; embryo; homeobox; nucleus; transcription regulation: E;4-54/bomain: LiM metal-binding repeat homology <LIM1>
F;63-117/Domain: LiM metal-binding repeat homology <LIM2>
F;8181-237/Domain: homeobox homology <HOX>
                                                                                                                                                                                                                                                                                                                                                                homeetic protein 11m-1 - rat
C;Species: Rattus sp. (rat)
C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 16-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    homeotic protein lim-1 - golden hamster
N;Alternate names: homeotic protein lmx2
C;Species: Mesocricetus auratus (golden hamster)
C;Species: Q2-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R;Furuyama, T.; Inagaki, S.; Iwahashi, Y.; Takagi, H.
Neurosci. Lett. 170, 266-268, 1994
A;Title: Distribution of Rlim, an LIM homeodomain gene, in the rat brain.
A;Reference number: I58187; MUID:94336075; PMID:7914684
A;Accession: I58187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R;Rudnick, A.; Ling, T.Y.; Odagiri, H.; Rutter, W.J.; German, M.S. Proc. Natl. Acad. Sci. U.S.A. 91, 12203-12207, 1994
A;Title: Pancreatic beta cells express a diverse set of homeobox genes. A;Reference number: 148185; MUID:95083670; PMID:7991607
A;Accession: 148186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             65.0%; Score 39; DB 1; Length 406; 66.7%; Pred. No. 21; Live 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 65.0%; Score 39; .DB 1; Length 406;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Status: preliminary; translated from GB/EMBL/DDBJ A;Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Status: preliminary; translated from GB/EMBL/DDBJ
                               80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. 21;
2; Mismatches
                                                            Pred. No. 21;
2; Mismatches
                                      Score 39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 66.7%;
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity 66.7
                                                                                           Conservative
                                                                                                                                                                                                                 290 NYDFFPQGP 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  292 NYDFFPQGP 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                292 NYDFFPQGP 300
                                                                                                                                                        σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 NYNFFPRKP 9
                               Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 NYNFFPRKP
                                                                                                                                                        1 NYNFFPRKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C; Accession: 148186
                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Accession: I58187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loc
Matches
                                                                                                                                                                                                                                                                                                          1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 12
                                                                                                                                                        ઠ
                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mylternate names: homeotic protein lim-1
LIM domain transcription factor LIM-1 - human
Nylternate names: homeotic protein lim-1
C; Pacession: Gapiens (man)
C; Date: 21-Dec-1996 #sequence_revision 06-Jun-1997 #text_change 09-Jul-2004
C; Accession: G01507
R; Dong, W.
submitted to the EMBL Data Library, September 1994
A; Reference number: G07570
A; Reference number: G07570
A; Residue: translated from GB/EMBL/DDBJ
A; Residue: translated from GB/EMBL/DDBJ
A; Residues: 1-404 < DON>
A; Residues: 1-404 < DON>
A; C; Genetics:
C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              끕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Molecule type: mRNA
A;Residues: 1-403 <TAI>
A;Cross-references: UNIPROT:P29674; UNIPARC:UPI000012E658; EMBL;X63889; NID:g64829; PIDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A,Gene: lim-1
C;Superfamily: homeotic protein lim-1; homeobox homology; LIM metal-binding repeat homol
C;Keyworls DNA binding; duplication; embryo; homeobox; nucleus; transcription regulatic
E;4-54/Domain: LIM metal-binding repeat homology <LIM1>
F;63-117/Domain: LIM metal-binding repeat homology <LIM2>
F;180-236/Domain: homeobox homology <HOX>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Gene: hLIM-1
S;Superfamily: homeotic protein lim-1; homeobox homology; LIM metal-binding repeat homol
C;Keywords: DNA binding; duplication; embryo; homeobox; nucleus; transcription regulation
F;4-54/Domain: LIM metal-binding repeat homology <LIM1;
                                                                                                                                                        A, Experimental source: strain OT3
A, Experimental source: strain OT3
A, NOte: this accession replaces an interim accession for a sequence replaced by GenBank C, Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          homeotic protein lim-1 - African clawed frog
C;Species: Xenopus laevis (African clawed frog)
C;Species: Xenopus laevis (African clawed frog)
C;Accession: S23802
R;Taira, M.; Jamrich, M.; Good, P.J.; Dawid, I.B.
R;Taira, M.; Jamrich, M.; Good, P.J.; Dawid, I.B.
R;Taira, M.; Jamrich, M.; Good, P.J.; Dawid, I.B.
A;Title: The LIM domain-containing homeo box gene Xlim-1 is expressed specifically in the Keference number: S23802; MUID:92192449; PMID:1347750
A;Accession: S23802.
                                                                                                                        A;Residues: 1-121 «KAW»
A;Cross-references: UNIPROT:O58660; UNIPARC:UPI000062F59; GB:AP000004; NID:g3236131;
                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                               A;Accession: H71086
A;Status: preliminary; nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ô
                                                                                                                                                                                                                                                                                                                                      65.0%; Score 39; DB 2; Length 121; 85.7%; Pred. No. 6.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 39; DB 1; Length 403;
Pred. No. 21;
2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         F;63-117/Domain: LIM metal-binding repeat homology <LIM2>
A; Reference number: A71000; MUID: 98344137; PMID: 9679194
                                                                                                                                                                                                                                                                                                                                                                                                      1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   F;181-237/Domain: homeobox homology <HOX>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        65.0%;
                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ||:|||: |
NYDFFPQGP 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 NYNFFPRKP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |:|||||
NFNFFPR 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 NYNFFPR 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                             A; Gene: PH0957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               291
                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C, Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
```

ö

Gaps

.; 0

0

Gaps

ö

1;

```
Search completed: Pebruary 21, 2006, 08:01:09 Job time : 17.5263 secs
          111 NYSFOPDKFPRKPE 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 66.7
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             :|||:| ||
785 HYNFYPIKP 793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 NYNFFPRKP 9
                                                                                                                                                                                                                                                                                          C, Accession: H69141
                                                                                                                  RESULT 15
          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
homeotic protein lim-1 - mouse
C;Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Date: O2-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-Jul-2004
C;Accession: 148637; S42788
R;Fujii, T.; Pichel, J.G.; Taira, M.; Toyama, R.; Dawid, I.B.; Westphal, H.
Dev. Dyn. 199, 73-83, 1994
A;Title: Expression patterns of the murine LIM class homeobox gene liml in the developin A;Reference number: 148637; MUID:94220754; PMID:7909459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Accession: S42788
A; Status: preliminary
A; Cross-references: UNIPARC: UPI0000021621; EMBL: Z27410; NID: g425216; PIDN: CAA81797.1; PI
A; Cross-references: UNIPARC: UPI0000021621; EMBL: Z27410; NID: g425216; PIDN: CAA81797.1; PI
C; Genetics:
A; Genetics:
A; Genetics:
C; Superfamily: homeotic protein lim-1; homeobox homology; LIM metal-binding repeat homol
C; Keywords: DNA binding; duplication; embryo; homeobox; nucleus; transcription regulatic
F; 4-54/Domain: LIM metal-binding repeat homology < LIM1>
F; 63-117/Domain: LIM metal-binding repeat homology < LIM2>
F; 181-237/Domain: homeobox homology < HOX>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Reasdaues: 1-518 aDU2
A; Reasdaues: 1-518 aDU2
A; Cross-references: UNIPROT: P18634; UNIPARC: UP1000013B7E7; EMBL: U19729; NID: g625097; PIL
A; Experimental source: strain S288C (AB972)
B; Ackerman, S.H.; Tzagoloff, A.
B; Biol. Chem. 265, 9952-9959, 1990
A; Title: ATP10, a yeast nuclear gene required for the assembly of the mitochondrial F-1-A; Reference number: A36445; MUID: 90277691; PMID: 2141026
A; Accession: C36445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Residues: 1-210 <ACK>
A;Cross-references: UNIPARC:UPI0000168B0F; GB:J05463; NID:g1431794; PIDN:AAB05631.1; PIQ
C;Generics: Strain D273-108/A1
A;Cross-references: Grain D273-108/A1
                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: UNIPROT:P36199; UNIPARC:UPI0000021621; EMBL:227410; NID:9425216; PID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   hypothetical protein YLR392c - yeast (Saccharomyces cerevisiae)
N;Alternate names: hypothetical protein L8084.13
C;Species: Saccharomyces cerevisiae
C;Date: 23-Aug-1995 #sequence_revision 19-Oct-1995 #text_change 09-Jul-2004
C;Accession: S55948; C36445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              65.0%; Score 39; DB 1; Length 406; 66.7%; Pred. No. 21; ive 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         65.0%; Score 39; DB 2; Length 518; 57.1%; Pred. No. 27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      submitted to the EMBL Data Library, January 1995
A;Description: The sequence of S. cerevisiae cosmid 8084.
A;Reference number: S55944
A;Accession: S55948
                                                                                                                                                                                                                                                                                                               A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-406 <RES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                          R;Fujii, T.
submitted to the EMBL Data Library, November 1993
A;Reference number: S42788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 66.7
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ||:|||: |
292 NYDFFPQGP 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 NYNFFPRKP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
```

```
Rismith, D. R.; Doucette-Stamm, L.A.; Deloughery, C.; Lee, H.; Dubois, J.; Aldredge, T.; Giu, D.; Spadafora, R.; Vicaire, R.; Wang, Y.; Wierzbowski, J.; Gibson, R.; Jiwani, N. Ki, S.; Church, G.M.; Daniels, C.J.; Mao, J.; Rice, P.; Noelling, J.; Reeve, J.N. J. Bacteriol. 179, 7135-7155, 1997
A,Title: Complete genome sequence of Methanobacterium thermoautotrophicum Delta H: funct A; Reference number: A69000; MUID:98037514; PMID:9371463
A; Reference number: A6900; MUID:98037514; PMID:9371463
A; Reference number: A6900; MUID:98037514; PMID:9371463
A; Residue: L.957 cMTH>
A; Residues: 1-957 cMTH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: UNIPROT:026426; UNIPARC:UPI000062AD5; GB:AE000817; GB:AE000666; NID
A;Experimental source: strain Delta H
                                                                                                                                                                                                                                                                  hypothetical protein MTH326 - Methanobacterium thermoautotrophicum (strain Delta H) C;Species: Methanobacterium thermoautotrophicum C;Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 09-Jul-2004
      ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Gene: MTH326
C;Superfamily:.Methanobacterium thermoautotrophicum hypothetical protein MTH326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gape
      Gaps
      4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 957
      IndelB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1; Indels
      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 39; DB 2;
Pred. No. 50;
2; Mismatches
   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    65.0%; Score 39; 66.7%; Pred. No.
   .;
;
                                                            1 NYNF----FPRKPK 10
Conservative
      .,
8
   Matches
                                                            ò
```

This Page Blank (uspto)

GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd.

OM protein - protein search, using sw model

February 21, 2006, 18:31:04 ; Search time 100.263 Seconds
(without alignments)
70.369 Million cell updates/sec Run on:

US-10-601-059-13 60 1 NYNFFPRKPK 10 Perfect score: Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

2166443 seqs, 705528306 residues Searched:

18 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 100% Maximum Match 100%

Listing first 45 summaries

UniProt_05.80:*
1: uniprot_sprot:*
2: uniprot_trembl:* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

1	Famil	s lae	cabal	s lae	s lae	Eamil	ris g	s tro	s lae	apien	glis	rofa	taurus	musculu	lagus	norv	norv	qall
tion	canis fami		equus caba	xenopus lae	xenopus	canis famil	meleagris	xenopus tro	xenopus lae	homo sapier	tupaia glis	sus scrofa	ров	mus	oryctolagus	rattus	rattus	qallus
Description	Q9n1t9	Q4k1f6	Q9tu18	Q78ya5	069qi1	09n1p6	66/190	Q5fvw8	08uuz3	P08253	05iy21	095 ja4	09g1e5	P33434	P50757	P33436	Q6gmm9	090611
	29N1T9 CANFA	4 KLF6 XENLA	9TUL8 HORSE	7SYAS XENLA	PGG11_XENLA	29N1P6_CANFA	SU7G9 MELGA	SFVW8 XENTR	JUUZ3 XENLA	1P2 HUMAN	QSIYZ1 TUPGB	5JA4_PIG	GLES_BOVIN	1P2 MOUSE	IP2 RABIT	IP2_RAT	Q6GMM9 RAT	1P2 CHICK
a ID	ä	ŏ	ö	ò	ŏ	ö	ŏ	ö	ŏ	Ź	ö	õ	ö	Ź	Ē	Ź	ŏ	£
Match Length DB	112	223	385	559	595	632	654	655	959	660	099	661	661	662	662	662	662	663
Match	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Score	09	9	9	9	09	9	9	09	9	9	9	9	9	9	9	9	9	9
Result No.	-	8	m	4	S	9	7	ω	σ	10	11	12	13	14	15	16	17	18

# ALIGNMENTS

				_	
	÷		update)	n update	
	112 AA.		ence	tatio	
	PRT;	, Created)	Last sequence update)	Last annotation update	(Pragment).
	, X,	15,	15,	. 26,	e-2 (
	Q9N1T9_CANFA PRELIMINARY; Q9N1T9;	01-OCT-2000 (TrEMBLrel. 15	(TrEMBLrel.	01-MAR-2004 (TrEMBLrel.	Matrix metalloproteinase-2
	CANFA	2000	2000	2004 (	metall
RESULT 1 29N1T9 CANFA	Q9N1T9	01-OCT-	01-OCT-2000	01-MAR-	Matrix
RESULT 1 Q9N1T9 C	A i	占	H	텀	DB

Canis familiaris (Dog). Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Laurasiatheria, Carnivora, Fissipedia, Canidae, A Jahler H., Kitchell B.E., Paria B.C.;

Laborited (APR-1999) to the EMBL/GenBank/DDBJ databases.

R Submitted (APR-1999) to the EMBL/GenBank/DDBJ databases.

R HSSP; P08253; JCXD.

R HSSP; P08253; JCXD.

R BRGOPS; M10.003; -.

R Bremell: RNSGAFG0000009421; Canis familiaris.

R GO; GO:000559; C:extracellular matrix (sensu Metazoa); IEA.

R GO; GO:000559; P:proteolysis and peptidolysis; IEA.

R GO; GO:000559; P:proteolysis and peptidolysis; IEA.

R InterPro; IPR000794; Ketoacyl synth.

R InterPro; IPR001818; Peptidase MIO.A, M12B.

R PROSITE; PS00606; B KETOACYL SYNTHASE; UNKNOWN_1. 112 AA; 12110 MW; 7FD7259CAACD9617 CRC64; 112 NUCLEOTIDE SEQUENCE. FISSUE=Fibrosarcoma; NCBI_TaxID=9615; NON TER NON TER SEQUENCE 

Query Match
100.0%; Score 60; DB 2; Length 112;
Best Local Similarity 100.0%; Pred. No. 0.0069;
Matches 10; Conservative 0; Mismatches 0; Indels 1 NYNFFPRKPK 10 8

ö

Gapa

ö

103 NYNFFPRKPK 112

셤

RESULT 2

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae; Xenopodinae; Xenopus; Xenopus. NCBI_TaxID=8355; 13-SEP-2005 (TrEMBLrel. 31, Created)
13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
Hypothetical protein.
Xenopus laevis (African clawed frog). 223 AA. Q4KLF6_XENLA PRELIMINARY; Q4KLF6;

TISSUR=Whole; BEDLINE=22341132; PubMed=12454917; DOI=10.1002/dvdy.10174; Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W., Richardson P.; Genetic and genomic tools for Xenopus research: The NIH Xenopus Dev. Dyn. 225:384-391(2002). initiative.

NUCLEOTIDE SEQUENCE.

NUCLEOTIDE SEQUENCE.

TISSUE-Whole;
MEDLINE-22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Rlausner R.D., Collins F.S., Wagner L., Shemmen C.M., Schuler G.D.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
Diatchenko L., Maruslina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,  N

us-10-601-059-13.rup

```
and
                                                                                                                                                           용
      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Schnerth A., Schein J.E., Jones S.J.M., Marra M.A.; "Generation and initial analysis of more than 15,000 full-length human and mouse CDNA sequences."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Laurasiatheria; Perissodactyla; Equidae; Equus.
NCBI_TaxID=9796;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R MEROPS; MIO.003; --
R GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
GO; GO:0004222; P:metalloendopeptidase activity; IEA.
GO; GO:0006509; P:metalloendopeptidase activity; IEA.
GO; GO:0006509; P:metalloendopeptidase activity; IEA.
R InterPro; IPR000562; FW Type_II.
R InterPro; IPR000585; Hemopexin.
R InterPro; IPR0010818; Peptidase Mio.
R InterPro; IPR001818; Peptidase Mio.
R InterPro; IPR001818; Pept Mio.
R PEIM: PF00141; Peptidase Mio; 1.
R PEIM: PF0013; PR0013; FNTYPEII.
R PRINTS; PR00138; MATRIXIN.
R PRINTS; PR00138; MATRIXIN.
R SMART; SM00029; FNZ; 3.
R SMART; SM00029; FNZ; 3.
R SMART; SM000235; ZnMC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 60; DB 2; Length 385; larity 100.0%; Pred. No. 0.025; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 60; DB 2; Length 223; 100.0%; Pred. No. 0.014;
                                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                        Klein S., Gerhard D.S.;
Submitted (UUL-2005) to the EMBL/GenBank/DDBJ databases.
EMBL; BC099241; AAH99241.1; -; mRNA.
Hypothetical protein.
SEQUENCE 223 AA; 25889 WW; AB815A358ECD68F1 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=Hoof tissue;
Kyaw-Tanner M.T., Mungall B.A., Pollitt C.C.;
Submitted (JUN-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ24311; CAB46656.1; -; mRNA.
HSSP; PO8253; ICXW.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          385 385
385 AA; 42946 MW; B36FBDA638EA7072 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
                                                                                                                                                                        Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             385 AA
                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Prec. ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE, PS00023; FIBRONECTIN 2; 3.
PROSITE, PS00142; ZINC_PROTEASE; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matrix metalloproteinase-2 (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QTUL8 HORSE PRELIMINARY;
Q9TUL8;
                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity 100.
nes 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NYNFFPRKPK 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Equus caballus (Horse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                    NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
les 10; Conserv
                                                                                                                                                                                                                                        rissum=Whole;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HORSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SECULT SE
    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
```

```
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Amphibia, Batrachia, Anura, Mesobatrachia, Pipoidea, Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W., Richardson P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Genetic and genomic tools for Xenopus research: The NIH Xenopus initiative.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE=Whole;
MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEROPS; M10.003; -...
GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
GO; GO:0005422; F:metalloendopeptidase activity; IEA.
InterPro; IPR000562; FN Type_II.
InterPro; IPR000562; FM Type_II.
InterPro; IPR000562; Peptidase_M.
InterPro; IPR006026; Peptidase_M.
InterPro; IPR006025; Pept_M10A_M12B.
InterPro; IPR006025; Pept_M10A_M12B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=Whole; MEDLINE=22341132; PubMed=12454917; DOI=10.1002/dvdy.10174; MEDLINE=22341132; PubMed=12454917; DOI=10.1002/dvdy.10174;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Klein S., Strausberg R.;
Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases
EMBL; BCO54947, AAH54947.1; -; mRNA.
HSSP; P08253; 1HOV.
                                                                                                                                                                                                   01-OCT-2003 (TrEMBLrel. 25, Created)
01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                roc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                         559 AA
                                                                                                                                                                                                                                                                                            Xenopus laevis (African clawed frog)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00413; Peptidase_M10; 1.
Pfam; PF00393; Peptidase_M10_N; 1.
PRINTS; PR00013; FNTYBEIT
PRINTS; PR00138; MATRIXIN.
                                                                                                                                                                                                                                                                                                                                                       Xenopodinae; Xenopus; Xenopus, NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dev. Dyn. 225:384-391(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pfam; PF00040; fn2; 3. ____
Pfam; PF00045; Hemopexin; 2.
                                                                                                                                                      Q7SYAS XENLA PRELIMINARY;
Q7SYAS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mouse cDNA sequences.
NYNFFPRKPK 10
                         NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                NUCLEOTIDE SEQUENCE
                                                                                                                                                                                                                                                                          Mmp2-prov protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rissum=Whole;
                                                                                                                                                                                                   01-OCT-2003
01-OCT-2003
  н
```

```
Name=MMP-2
                                                                                                                                                                                                                                                                                                                                                                          NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mmp2-prov protein (Fragment).
Name=mmp2-prov,
Name=mmp2-prov,
Xenopus laevis (African clawed frog).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDINE=22341132; PubMed=12454917; DOI=10.1002/dvdy.10174; Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W., Richardson P.; "Genetic and genomic tools for Xenopus research: The NIH Xenopus
                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE=Spleen;
MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=Spleen;
Klein S., Strausberg R.;
Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
BMBL; BC072762; AAH72762.1; -; mRNA.
GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
                                                                                                                                                                             Length 559;
                                                                                                                                                                                                                  0; Indels
                                                                  PROSITE; PSO0546; CYSTEINE SWITCH; 1.
PROSITE; PSO0023; FIBRONECTIN 2; 3.
PROSITE; PSO0024; HEMOPEXIN; 1.
PROSITE; PSO10142; ZINC PROTEASE; UNKNOWN 1.
SEQUENCE 559 AA; 63084 MW; P27BDBACE59E4B52 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                             05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                             100.0%; Score 60; DB 2;
100.0%; Pred. No. 0.037;
iive 0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                              595 AA.
                                                                                                                                                                                                                                                                                                                                                                            PRT;
ProDom; PD000995; FN_Type_II; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Xenopodinae; Xenopus; Xenopus. NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dev. Dyn. 225:384-391 (2002)
                                                                                                                                                                                                                                                                                                                                                                          QGGQI1 XENLA PRELIMINARY;
QGGQI1;
                                                                                                                                                                                                Best Local Similarity 100.
Matches 10; Conservative
                    SMART, SM00059; FN2; 3.
SMART, SM00120; HX; 2.
SMART, SM00235; ZnMc; 1.
                                                                                                                                                                                                                                                                                       105 NYNPFPRKPK 114
                                                                                                                                                                                                                                                    1 NYNPEPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rissum=Spleen
                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                           XENLA
                                                                                                                                                                                                                                                                                                                                       RESULT 5
066011 XE
066011 XE
06600 AC
0670 AC
070 AC
07
   g
```

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Canis familiaris (Dog).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Laurasiatheria, Carnivora, Fissipedia, Canidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=Fibrosarcoma;
Jahic H., Paria B., Balkin R., Baxendale V., Fang Y., Kitchell B.;
Submitted (AUG-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AF17217, AAF67517.1; -; mRNA.
HSSP; PO8253; IGXD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R ENGEMDI; ENSCAPEGODO009421; Canis familiaris.

R GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.
GO; GO:0004522; F:metalloendopeptidase activity; IEA.
GO; GO:0004508; F:metalloendopeptidase activity; IEA.
R GO; GO:0006508; F:metalloendopeptidase activity; IEA.
R InterPro; IPRO0562; FN Type_II.
R InterPro; IPRO0565; Peptidase M.
R InterPro; IPRO06055; Peptidase M.
R InterPro; IPRO06055; Peptidase M.
R InterPro; IPRO06055; Peptidase M.
R Pfam; PF00040; fin2; 3.
R Pfam; PF00413; Peptidase M.0; 1.
R Pfam; PF00313; Peptidase M.0; 1.
R PRINTS; PR00013; PNTYBEII.
R PRINTS; PR0013; MATRIXIN.
R PROMOS95; FN_TYPE_II; 3.
R SWART; SM00120; HX; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 60; DB 2; Length 595; 100.0%; Pred. No. 0.04;
GO; GO:0004222; F:metalloendopeptidase activity; IEA.
GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
InterPro; IPR000562; FW_TYPE II.
InterPro; IPR000585; Hemopexin.
InterPro; IPR00656; Peptidase_M.
InterPro; IPR006025; Pept_MlOA_M12B.
InterPro; IPR006025; Pept_MlOA_M12B.
InterPro; IPR006025; Pept_MlOA_M12B.
InterPro; IPR006025; Pept_MlOA_M12B.
InterPro; IPR00404; Hemopexin; 3.
Ffam; PF00404; Peptidase_M10, 1.
Ffam; PF00413; Peptidase_M10, 1.
RFMINTS; PR0013; Peptidase_M10, 1.
RFMINTS; PR0013; PRNTVEII.
RFMINTS; PR0013; PRNTVEII.
SMRAT; SM00259; FN2; 3.
SMART; SM00235; ZnMc; 1.
R PROSITE; PS0024; HEMOPEXIN; 1.
R PROSITE; PS00024; HEMOPEXI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 595 AA; 67335 MW; 688556DF6039FF83 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-WAR-2004 (TrEMBLrel. 26, Last annotation update)
Matrix metalloproteinase-2 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.0
Matches 10, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q9N1P6 CANFA PRELIMINARY;
Q9N1P6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEROPS; M10.003; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9615;
```

ö

```
Query Match
SO WERE THE PROPERTY OF THE PR
                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Melaagris gallopavo (Common turkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Meleagris.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A SOCIATION OF STATE 
                                                                                                                                                                                                                                                                                                                                                                           ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                       100.0%; Score 60; DB 2; Length 632;
100.0%; Pred. No. 0.043;
tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 60; DB 2; Length 654; 100.0%; Pred. No. 0.044; ive 0; Mismatches 0; Indel8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Monsonego Ornan E., Tong A.;
Submitted (AUG-2003) to the EMBL/GenBank/DDBJ databases.
EMBL; AY376899; AAQ98971.1; -; mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS00023; FIBRONECTIN 2; 3.
PROSITE; PS00024; HENCHDEXIN, I.
PROSITE; PS00142; ZINC PROTEASE; UNKUOWN 1.
SEQUENCE 654 AA; 73956 WW; F9B0755F76B6F8DD CRC64;
                                                                                                                                                                                                                       632 AA; 70991 MW; D8AE895497E129F3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   654 AA
                   PROSITE; PS00546; CYSTEINE SWITCH; 1.
PROSITE; PS00023; FIBRONECTIN 2; 3.
PROSITE; PS00024; HEMOPEXIN; 1.
PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN 1.
NON TER 1 1 1 1 1 1 SEQUENCE 632 AA; 70991 MW; DBAE895497EIZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00546; CYSTEINE_SWITCH; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QGU7G9 MELGA PRELIMINARY;
QGU7G9;
                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 100.
SMART; SM00235; ZnMc; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          106 NYNFFPRKPK 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gelatinase A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              XENTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 8
QSFVW8 XE
ID QSFV
AC QSFV
DT 10-M
8 7 7 8 8 8 8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A PART A 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
```

655 AA.

QSFVWB XENTR PRELIMINARY; PRT; QSFVWB; 10-MAY-2005 (TrEMBLrel. 30, Created)

```
MEDINE=2238825; PubMed=12477932; DOI=10.1073/pnas.242603899;
XX MEDINE=2238825; PubMed=12477932; DOI=10.1073/pnas.242603899;
XI atuaner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
XA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Malkesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
Generation and initial analysis of mone than 15,000 full-length human
and mouse CDNA sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-Whole body.

X Nein S., Gerhard D.S.;

X Nein S., Gerhard D.S.;

X Submitted (FRB-2005) to the EMBL/GenBank/DDBJ databases.

Submitted (FRB-2005) to the EMBL/GenBank/DDBJ databases.

BC089734; AAH89734.1; -; makA.

ROS GO:0005278; C:extracellular matrix (sensu Metazoa); IEA.

ROS GO:0008270; F:zinc lon binding; IEA.

RITEPRO: IPRO00825; PEPT MINA.

READ: PRO0045; Hemopexin.

READ: PRO0043; PEPTEITI.

READ: PRO0043; PEPTEITI.

READ: PRO0043; PERTYPEITI.

READ: PRO0043; PROFICES MINA.

ROS SWART; SM00126; RITYPEITI.

READ: ROSOSTER; PRO0059; FRY FRY 13.

ROSSTER; PRO0059; FRY 13.

RECORTER; PRO0059; FRY 13.

RECORTER; PRO0059; FRY 13.

RECORTER; PRO0042; FRY 14.

RECORTER; PRO0044; FRY 14.

RECORTER; PRO0044; FRY 14.

RECORTER; PRO0045; FRY 14.

RECORTER; PRO0044; FRY 14
10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
MGC108375 protein.
Name=MGC108375;
Name=MGC108375;
Stropius Irropicalis (Western clawed frog) (Silurana tropicalis).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Suteleostomi; Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 60; DB 2; Length 655; illarity 100.0%; Pred. No. 0.044; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                              Xenopodinae; Xenopus; Silurana.
NCBI_TaxID=8364;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
Matches 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

S

104 NYNFFPRKPK 113

셤

```
(Rel. 08, Created)
(Rel. 17, Last sequence update)
(Rel. 48, Last annotation update)
IV collagenase precursor (EC 3.4.24.24) (72 kDa (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A) (TBB-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=21888509; PubMed=11891989; DOI=10.1002/dvdy.10069; DOI=10.1002/dvdy.10069; Doing J.C., Leco K.J., Edwards D.R., Fini W.R.; Matrix metalloprotesinases mediate the dismantling of mesenchymal structures in the tadpole tail during thyroid hormone-induced tail
                                                                                                                                                                                                                                                                    Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Amphibia, Batrachia, Anura, Mesobatrachia, Pipoidea, Pipidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Leco K., Jung J.-C., Fini M., Edwards D.R.;
Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases.
R EMBL; AY037943; AAL01591.1; -; mRNA.
RHSSP; P005253; JQ1B.
R HSSP; P005253; JQ1B.
R HSSP; P005578; C:extracellular matrix (sensu Metazoa); IEA.
R GO; GO:0006578; C:extracellular matrix (sensu Metazoa); IEA.
R GO; GO:0006508; P:metalloendopeptidase activity; IEA.
R InterPro; IPR000562; F:metalloendopeptidase activity; IEA.
R InterPro; IPR000585; Hemopexin.
R InterPro; IPR000628; Peptidase M.
R InterPro; IPR000628; Peptidase M.
R InterPro; IPR000451; Feptidase M.
R Pfam; PF000441; Hemopexin; 4.
R Pfam; PF004413; Peptidase M.O); 1.
R Pfam; PF004413; Peptidase M.O); 1.
R Pfam; PF000413; Peptidase M.O); 1.
R Pfam; PF000413; Peptidase M.O); 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 656;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INC PROTEASE; UNKNOWN 1.
74272 MW; 50C28A99C427F51D CRC64;
                                                                                                                 01-MAR-2002 (TrEMBLrel. 20, Created)
01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-WAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 60; DB 2;
100.0%; Pred. No. 0.044;
iive 0; Mismatches 0
                                                                  656 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R PROSITE; PS00546; CYSTEINE SWITCH; 1.
PROSITE; PS00024; FIBRONECTIN 2; 3.
PROSITE; PS00024; HENOPEXIN; 7.
PROSITE; PS00142; ZINC_PROTEASE; INTERVALLE; PS0UENCE 656 AA.
                                                                                                                                                                                                                                        Xenopus laevis (African clawed frog)
                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRINTS; PRODO13; FNTYPEII.

SHRINTS; PROD13; NATRIXIN.

PRODON; PD000995; FN TYPE_II; 3.

SMART; SM00059; FN2; 3.
                                                                                                                                                                                                                                                                                                                                      Xenopodinae; Xenopus; Xenopus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Dev. Dyn. 223:402-413(2002).
                         QUUZZ XENLA PRELIMINARY;
                                                                                                                                                                                                               Matrix metalloproteinase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           105 NYNPPPRKPK 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 NYNPPPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                               NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-FEB-1991
13-SEP-2005
72 kDa type 1
gelatinase)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-AUG-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     resorption.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MMP2 HUMAN
P08253;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MMP2 HUMAN
RESULT 9

QUUZZI XE

QUUZZI XE

QUUZZI XE

QUUZZI XE

QUUZZI XE

QUI-M

DT 01-M

DT 01-M

DT 01-M

DT 01-M

DT 01-M

DT 01-M

DE MALT

C Amph

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2244488
```

ö

```
MEDLINE-22386257; PubMed-12477932; DOI=10.1073/pnas.242603899;

M. Strausberg R.L., Peingold E.A., Grouse L.H., Derge J.G.,

A. Alausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

A. Alausner R.D., Collins P.S., Wagner L., Shenmen C.M., Schuler G.D.,

A. Alausner R.D., Mollins P.S., Wagner L., Wang J., Haieh F.,

A. Hopkins R.F., Jorden H., Moore T., Max S.I., Wang J., Hsieh F.,

A. Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

A. Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

A. Raha S.S., Loquellano N.B., Peters G.J., Abramson R.D., Mullahy S.J.,

A. Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

A. Raha S.S., Loquellano N.A., Sodergren E.J., Lu X., Gibbs R.A.,

A. Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

A. Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

A. Mitting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,

B. Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUCLECTIDE SEQUENCE [GENOMIC DNA], AND VARIANTS VAL-447 AND LEU-621. Litvingston R.J., Rieder M.J., Chung M.-W., Ritchie T.K., Olson A.N., Nguyen C.P., Nguyen D.A., Poel C.L., Chambers S.W., Schackwitz W.S., Sherwood J.K., Sherwood A.M., Leithauser B.J., Nickerson D.A.; "NIEMS-SNPs, environmental genome project, NIEMS ES15478, Department of Genome Sciences, Seatlle, WA (URL: http://egp.gs.washington.edu)."; Submitted (AUG-2004) to the EMBL/GenBank/DDBJ databases.
                                     Homo sapiens (Human).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                    MEDIINE-91236162; PubMed=1851724; Collier I.E., Bruns G.A.P., Goldberg G.I., Gerhard D.S.; "On the structure and chromosome location of the 72- and 92-kDa human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Completion of the primary structure of the human type IV collagenase preproenzyme and assignment of the gene (CLG4) to the q21 region of chromosome 16.",
                                                                                                                                                                          NUCLEOTIDE SEQUENCE OF 19-660, AND PARTIAL PROTEIN SEQUENCE.
MEDLINE=88198218; PubMed=2834383;
Collier I.E., Wilhelm S.M., Eisen A.Z., Marmer B.L., Grant G.A.,
Seltzer J.L., Kronberger A. He C., Bauer E.A., Goldberg G.I.;
"H-ras oncogene-transformed human bronchial epithelial cells (TBE-1)
secrete a single metalloprotease capable of degrading basement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=90228972; Pubmed=2158484;
Huhtala P., Eddy R.L., Fan Y.S., Byers M.G., Shows T.B.,
Tryggvason K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PubMed=11179305; DOI=10.1128/IAI.69.3.1402-1408.2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=90293047; PubMed=2162831;
Huhtala P., Chow L.T., Tryggvason K.;
"Structure of the human type IV collagenase gene.";
J. Biol. Chem. 265:11077-11082(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
                                                                                                                                                                                                                                                                                                                    membrane collagen.";
J. Biol. Chem. 263:6579-6587(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            type IV collagenase genes.";
Genomics 9:429-434(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUCLEOTIDE SEQUENCE OF 1-51.
1).
Name=MMP2; Synonyms=CLG4A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sequences."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genomics 6:554-559(1990)
                                                                                                                                                                                                                                                                                                                                                                                      NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ENZYME REGULATION
                                                                                                                                  NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
```

```
TO-MAY-2005 (TrEMBLrel. 30, Created)
10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
MATIX metalloprotelinase 2.
Tupaia glis belangeri (Common tree shrew).

Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Buarchontoglires, Scandentia, Tupaia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3D-structure; Calcium, Collagen degradation;
Direct protein sequencing; Extracellular matrix; Glycoprotein;
Hydrolase; Metal-binding; Metalloprotease; Polymorphism; Protease;
Repeat; Signal; Zinc; Zymogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 60; DB 1; Length 660;
Pred. No. 0.045;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Activation peptide.
72 kDa type IV collagenase.
Fibronectin type-II 1.
Fibronectin type-II 2.
Fibronectin type-II 3.
Hemopexin-like.
                                                                                                                                                                                                                                                                                                                                           GO; GO:0005615; C:extracellular space; TAS.
GO; GO:0008270; F:gelatinase A activity; TAS.
GO; GO:0008270; F:zinc ion binding; TAS.
GO; GO:0008270; F:zinc ion binding; TAS.
InterPro; IPR000562; FN_type2_col_bd.
InterPro; IPR000585; Hempexin.
InterPro; IPR001818; Pept_MIOA_M12B.
InterPro; IPR001818; Pept_MIOA_M12B.
InterPro; IPR006025; Pept_M Zn_BS.
InterPro; IPR006025; Pept_M Zn_BS.
Ffam; PP00045; Hemopexin, 4.
Pfam; PP000413; Peptidase_MIO; 1.
Pfam; PP00413; Peptidase_MIO; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Collagenase-like 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PubMed=15621657; DOI=10.1080/10425170400012925;
Kenning M.S., Gentle A., McBrien N.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
      PDB; IGXD; X-ray; A/B=30-660.
PDB; IHOV; NNR; A=110-214.
PDB; IJ7M; NNR; A=33-294.
PDB; IKSO; NNR; A=23-282.
PDB; IQIB; X-ray; A=115-216.
PDB; IQIB; X-ray; A=115-216.
PDB; IRROPS; MIO.003; -..
Ensembl; ENSGOO0000097245; Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRINTS; PRO033; FEBTLEAGE TITO—N, TO PRINTS; PRO033; PRYTPRIT.

ProDom; PRO039; PR TYPE II; 3.

SMART; SM00059; FR; 3.

SMART; SM00220; FR; 4.

SMART; SM0023; PR; 4.

PROSITE; PS00023; FR2_1; 3.

PROSITE; PS00023; FR2_1; 3.

PROSITE; PS00024; HEMOPEXIN; 1.

PROSITE; PS00024; HEMOPEXIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Potential.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OSIY21 TUPGB PRELIMINARY;
OSIY21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                        HGNC; HGNC:7166; MMP2.
H-InvDB; HIX0013041; -.
MIM; 120360; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=37347;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
DOMAIN
REGION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bode W.;

"The C-terminal (haemopexin-like) domain structure of human gelatinase

"A (MMP2): structural implications for its function.";

"The C-terminal (haemopexin-like) domain structure of human gelatinase

"A (MMP2): structural implications for its function.";

"EBBS Lett. 378:126-130(1996).

"In addition to gelatin and collagens, it cleaves KiSS1

"A (ADI) Leu bond.

"C CAPALYIC ACTIVITY: Cleavage of gelatin type I and collagen types

"IN V, VII, X. Cleaves the collagen-like sequence Pro-Gln-Gly-|-

"In-Ala-Gly-Gln.

"IN-Al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                                                                                                                                              MEDLINE=22761370; PubMed=12879005; DOI=10.1038/sj.onc.1206542; Takino T., Koshikawa N., Miyamori H., Tanaka M., Sasaki T., Okada Y., Seiki M., Saco H.; "Cleavage of metastasis suppressor gene product KiSS-1 protein/metastin by matrix metalloproteinases.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      X-RAY CRYSTALLOGRAPHY (2.6 ANGSTROMS) OF 458-660.
MEDLINE=96140723; PubMed=8549817; DOI=10.1016/0014-5793(95)01435-7;
Gohlke U., Gomis-Rueth F.-X., Crabbe T., Murphy G., Docherty A.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=96069777; PubMed=7583664;
Libson A.M., Gittis A.G., Collier I.E., Marmer B.L., Goldberg G.I.,
Gusman H., Travis J., Helmerhorst E.J., Potempa J., Troxler R.F., Oppenheim F.G.;
Sallvary histarin 5 is an inhibitor of both host and bacterial enzymes implicated in periodontal disease.";
Infect. Immun. 69:1402-1408(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Crystal structure of the haemopexin-like C-terminal domain of gelatinase A.\,",
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY: Belongs to the peptidase M10A family. SIMILARITY: Contains 3 fibronectin type-II domains. SIMILARITY: Contains 1 hemopexin-like domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                          X-RAY CRYSTALLOGRAPHY (2.15 ANGSTROMS) OF 443-660.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1, MSSS21, AAAS2028.1; JOINED, Genomic_DNA.
1, MSSS21, AAAS2028.1; JOINED, Genomic_DNA.
1, MSSS81, AAAS2028.1; JOINED, Genomic_DNA.
1, MSSS91, AAAS0208.1; JOINED, Genomic_DNA.
1, MSSS91, AAAS0208.1; JOINED, Genomic_DNA.
1, MSSS91, AAAUS089.1; -; MRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genomic_DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nat. Struct. Biol. 2:938-942(1995).
[10]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; J03210; AAA35701.1; -; mRNA.
EMBL; M33789; AAA52027.1; -; Genom:
EMBL; M55593; AAA52028.1; -; Genom:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1CK7; X-ray; A=30-660.

1CXW, NMR; A=278-336.

1EAK; X-ray; A/C/D=32-452.

1GEN; X-ray; @=443-660.
                                                                                                                                                                                              PROCESSING OF KISSI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PIR; A28153; A28153
PDB; 1CK7; X-ray; A-
PDB; 1CXW; NMR; A=2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lattman E.E.;
```

ö

Gaps

ö

0; Indels

removed.

EMBL; EMBL; EMBL; EMBL; EMBL;

EMBL; EMBL; EMBL; EMBL; EMBL; EMBL;

EMBL;

EMBL; EMBL;

660 AA

ö

Gapa

ö

```
Yan L., Zhang B., Teang P., Fang J., Yu Y., Ingber D.E., Moses M.A.; Submitted (JuL-2000) to the EMBL/GenBank/DDBJ databases. EMBL; AP290428; AAG28169.1; -; mRNA. HSSP; P08253; IGXD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
Pecora; Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RRSPF, Worksof, Laar.

RROPS, M10.003-.

RGO, GO:0005598, C:extracellular matrix (sensu Metazoa); IEA.

RGO, GO:0005598, C:extracellular matrix (sensu Metazoa); IEA.

RGO, GO:0005508, P:proteolysis and peptidolysis; IEA.

RGO, GO:0005508, P:proteolysis and peptidolysis; IEA.

RICEPPO: IPR000562; FW Type II.

DR. InterPro: IPR006026; Peptidase_M.

InterPro: IPR006026; Peptidase_M.

InterPro: IPR00401819; Peptidase_M.

InterPro: IPR00401819; Peptidase_M.

DR. Pfam; PF000401; Rail.

DR. Pfam; PF000413; Peptidase_M.

DR. Pfam; PF000413; Peptidase_M.

DR. Pfam; PR00413; Peptidase_M.

DR. Pfam; PR00413; Peptidase_M.

DR. Probom; PR000995; FW1-Type_II; 3.

DR. SMART; SM00029; FW1-1; 3.

DR. SMART; SM00029; FW2; 1.

DR. SWART; SM00029; FW2; 1.

DR. PROSITE; PS00024; HENOPEXIN; 1.

DR. PROSITE; PS00024; HENOPEXIN; 1.

DR. PROSITE; PS00142; ZINC_PROTEASE; UNKNOWN_I.

RW. Metalloprotease; Protease.
                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 60; DB 2; Length 661; 100.0%; Pred. No. 0.045;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 60; DB 2; Length 661; ilarity 100.0%; Pred. No. 0.045; Conservative 0; Mismatches 0; Indels
                                                                                                               PRINTS; PRO013; FWTYPEII.

PRINTS; PR0013; FWTYPEII.

PRINTS; PR0013; FWTYPEII.

PRODOM; PR000995; FW1, Type_II; 3.

SWART; SW00029; FR3; 4.

SWART; SW00219; FR3; 4.

SWART; SW00219; FR3; 4.

SWART; SW00219; FR3; 4.

PROSITE; PS00023; FIBRONECTIN 2; 3.

PROSITE; PS00024; HEMOPERIN; I.

PROSITE; PS0014; ZIC PROTESE; UNKNOWN 1.

SEQUENCE 661 AA; 73669 MW; 41CD448BD72D2CC2 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Marrix metalloprotesse 2.
Bos taurus (Bovine).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                       Pfam; PF00045; Hemopexin; 4.
Pfam; PF00413; Peptidase_M10; 1.
Pfam; PF03933; Peptidase_M10_N; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QGLES BOVIN PRELIMINARY;
QGGLES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     110 NYNFFPRKPK 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                [1]
NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
Matches 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OSCILES
                   셤
RT "Expression and CDNA sequence of matrix metalloproteinase-2 (MMP-2) in a mammalian model of human disease processes: Tupaia belangeri."; BR 2018 332-337(2004).

BRELL, AV660958; AAT44903.1; -; mRNA.

BRELL, AV660958; C:extracellular matrix (sensu Metazoa); IEA.

BR GO; GO:0006222; F:metallocapeptidase activity; IEA.

BR GO; GO:0008220; F:metallocapeptidase activity; IEA.

BR GO; GO:000820; F:zinc ion binding; IEA.

BR GO; GO:000820; F:zinc ion binding; IEA.

BR GO; GO:0008585; Hempering; IEA.

BR GO; GO:0008585; Hempering; IEA.

BR InterPro; IPR0006585; Pept MIZ.

BR Ffam; PF00040; Finz; 3.

BR Ffam; PF00040; Finz; 3.

BR Ffam; PF00045; Hemperize MIO. N; 1.

BR Ffam; PF00045; Peptidase MIO. N; 1.

BR FRANTS; PR00136; PMTYPEII.

BR FRANTS; PR00136; PMTYPEII.

BR FRANT; SM00126; HX; 4.

BR SWART; SM00126; HX; 4.

BR RNSITE; PS00023; FRZ: 1.3.

BR RNSITE; PS00023; FRZ: 1.3.

BR RNSITE; PS00023; FRZ: 1.3.

BR RNSITE; PS00024; FRANDERSE; 1.

BR RNSITE; PS00024; FRANDERSE; 1.

BR RNSITE; PS001480; MATRIAN; 1.

BR RNSITE; PS001480; MATRIAN; 1.

BR RNSITE; PS001480; MATRIAN; 1.

BR RNSITE; PS00148; FRANDERSE; 1.

BR RNSITE; PS00148; PROFERSE; 1.

BR RNSITE; PS00148; PMTYPEII: 3.

BR RNSITE; PS00148; FRANDERSE; 1.

BR RNSITE; PS00148; PMTYPEII: 3.

BR RNSITE; PMTYPEII: 3.

BR RNSITE; PMTYPEII: 3.

BR RNSITE; PMTYPEII: 3.

BR RNSITE; PMTYPEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gelatinase A.
Name-MMP-2;
Sus Scrofa (Pig).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE=Tooth enamel organ;
MEDLINE=21400581; PubMed=11597028;
Caron C., Xue J., Sun X., Simmer J.P., Bartlett J.D.;
Caton C., Xue J., Sun X., Simmer J.P., Bartlett J.D.;
"Gelatinase A (MMP-2) in developing tooth tissues and amelogenin hydrolysis.";
J. Dent. Res. 80:1660-1664 (2001).
EMBL; AR295805; AAK97133.1; -; mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEROPS; MIO.003; -. Gextracellular matrix (sensu Metazoa); IEA. GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA. GO; GO:0005278; C:extracellular matrix (sensu Metazoa); IEA. GO; GO:0005508; F:proteolysis and peptidolysis; IEA. InterPro; IPR000562; FN_Type_II.
InterPro; IPR000562; FN_Type_II.
InterPro; IPR000503; Peptidase M.
InterPro; IPR001818; Pept_MIOA_MI2B.
InterPro; IPR006025; Pept_MIOA_MI2B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 60; DB 2; Length 660; 100.0%; Pred. No. 0.045; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A4_PIG

Q95JA4_PIG PRELIMINARY; PRT; 661 AA.

Q95JA4;

Q1-DEC-2001 (TEMBLrel. 19, Created)

01-DEC-2001 (TEMBLrel. 19, Last sequence update)

Q1-MAR-2004 (TEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity 100.
Les 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ||||||||||
109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9823;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S:
Matches 10
```

셤 ઠે

ö

Gaps

ö

```
SIMILARITY: Contains 3 fibronectin type-II domains. SIMILARITY: Contains 1 hemopexin-like domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bimilarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Calcium 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Potential
                                                                                                                                                                                                                                                                                                                                                                                                           SWART; SM00235; ZnMc; 1.
PROSITE; PS00246; CYSTEINE_SWITCH; 1.
PROSITE; PS1092; FNZ 1; 3.
PROSITE; PS51092; FNZ 2; 3.
                                                                                                              EMBL; M84324; AAA39338.1; -; mRNA.
EMBL; BC070430; AH70430.1; -; mRNA
PIR; A42496; A42496.
                                                                                                                                                                                                                                                                                                                                                                 Probom; PD000995; FN Type_II; 3.
SMART; SM00059; FN2; 3.
SMART; SM00120; HX; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              HEMOPEXIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS00024;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 222
222
2222
2222
2222
110
110
110
118
118
118
118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  204
206
208
208
201
211
403
403
413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zinc; Zymogen,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
REGION
REGION
REGION
ACT SITE
                                                                                           removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               METAL
METAL
METAL
METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WETAL
 NUCLECTIDE SEQUENCE [LARGE SCALE MRNA].

STRAIN=C57BL/6; TISSUE=Brain;

MEDINRE-22388.25; PubMed=12477932; DOI=10.1073/pnas.242603899;

Klausner R.D., Feingold B.A., Grouse L.H., Derge J.G.,

Altachul S.F., Zeeberg B., Buetow K.H., Schnefer C.F., Bhat N.K.,

Altachul S.F., Zeeberg B., Buetow K.H., Schnefer C.F., Bhat N.K.,

Hopkins R.F., Jozdan H., Moore T., Max S.I., Wang J., Heishe F.,

Bitchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

Brownstein M.J., Usdin T.B., Tonahlowk S., Carninci P., Prange C.,

Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Brownstein M.J., Usdin T.B., Tochhyuki S., Carninci P., Prange C.,

Raba S.S., McEwan P.J., McKernan R.J., Malk J.A., Gunaratne P.H.,

Richards S., Worley K.C., Hale S., Garcia S., Sanchez A.,

Whiting M., Madan A., Young A.C., Shevchenko Y., Boulfard G.G.,

Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

Rodiquez A.C., Grimwood J., Schmutz J., Myers R.M.,

Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,

Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,

"Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Brenner C.A., Adler R.R., Rappolee D.A., Pedersen R.A., Werb Z.;
"Genes for extracellular-matrix-degrading metalloproteinases and their
inhibitor, TIMP, are expressed during early mammalian development.";
Genes Dev. 3:848-859(1989).
-!- CATALYTIC ACTIVITY: Cleavage of gelatin type I and collagen types
IIV, V, VII, X. Cleaves the collagen-like sequence Pro-Gln-Gly-1-
IIe-Ala-Gly-Gln.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COFACTOR: Binds 4 calcium ions per subunit (By similarity).
COFACTOR: Binds 2 zinc ions per subunit (By similarity).
COFACTOR: Ligand for integrin alpha-V/beta-3.

BENUNIT: Ligand for integrin alpha-V/beta-3.

BEVELOPMENTAL STAGE: Persent in unfertilized eggs and at the zygote and cleavage stages. Levels increase at the blastocyst stage and with endoderm differentiation.

PTM: The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-MMP3) (By similarity).

SIMILARITY: Belongs to the peptidase M10A family.
                                                                                                                                                                                                        Mus musculus (Mouse).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Euarchontoglires, Glires, Rodentia, Sciurognathi,
                                                                                                                                                                                                                                                                                      NUCLEOTIDE SEQUENCE.
MEDLINE-92218452; PubMed-1373140;
Reponen P., Sahlberg C., Huhtala P., Hurskainen T., Thesleff I.,
                                                                                                                                                                                                                                                                                                                         Tryggvason K.;
"Molecular cloning of murine 72-kDa type IV collagenase and its expression during mouse development.";
J. Biol. Chem. 267:7856-7862(1992).
                                                                                                                            01-FEE-1994 (Rel. 28, Created)
01-FEE-1994 (Rel. 28, Last sequence update)
13-SEP-2005 (Rel. 48, Last annotation update)
72 kDa type IV collagenase precursor (BC 3.4.24.24) (72 kDa gelatinase) (Matrix metalloproteinase-2) (WMP-2) (Gelatinase A)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002)
                                                                                                      662 AA.
                                                                                                                                                                                                                                                 Muroidea; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and mouse cDNA sequences.";
                                                                                                      STANDARD;
                                    NYNFFPRKPK 119
               1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEVELOPMENTAL STAGE.
                                                                                                                                                                                                                                                                NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FISSUE=Embryo;
PubMed=2744464;
                                                                                                      MOUSE
                                                                                                                                                                                                 мате≃мтр2;
                                       110
                                                                                          MOUSE
                                                                                       용
               ò
```

```
This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Glycoprotein;
Repeat; Signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Activation peptide.
72 kDa type IV collagenase.
Fibronectin type-II 1.
Fibronectin type-II 2.
Fibronectin type-II 3.
Hemopexin-like.
Collagenase-like.
Collagenase-like 1.
Collagenase-like 2.
By similarity.
Calcium 1 (By similarity).
Calcium 2 (By similarity).
Zinc 1 (By similarity).
Zinc 1 (By similarity).
Zinc 1 (By similarity).
Calcium 3 (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gimilarity).
Calcium 2 (by gimilarity).
Zinc 1 (By similarity).
Calcium 3 (By similarity).
Calcium 1 (By similarity).
Calcium 1 (By similarity).
Zinc 2 (catalytic) (By similarity).
Calcium 4 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Zinc 1 (By similarity).
Calcium 2 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00142; ZINC_PROTEASE; 1.
Calcium; Collagen degradation; Extracellular matrix;
Hydrolase; Metal-binding; Metalloprotease; Protease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Modification of the property o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEROPS; M10,003; -.
Ensembl; MRSWHSG0000031740; Mus musculus.
MG1; MG1:97009; Mmp2.
G0; G0:0005615; C:extracellular space; TAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    similarity).
```

STITITITES

셤

```
Prodom; Prodom Prodom Prodom Prodom; SMART; SM0059; FN2; 3.
SMART; SM00120; FN2; 3.
SMART; SM00120; FN2; 3.
SMART; SM00120; FN2; 3.
PROSITE; PS00023; FN2_1; 3.
PROSITE; PS00024; HRWOPEXIN; 1.
PROSITE; PS00024; HRWOPEXIN; 1.
PROSITE; PS00142; ZINC_PROTEASE; 1.
CAlcium; Collagen degradation; Extracellular matrix; Glycoprotein; Hydrolage; Metal-binding; Metalloproteage; Proteage; Signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                similarity).

Calcium 2 (By similarity).

Calcium 3 (By similarity).

Calcium 3 (By similarity).

Calcium 1 (By similarity).

Calcium 3 (By similarity).

Calcium 3 (By similarity).

Zinc 2 (catalytic) (By similarity).

Calcium 4 (via carbonyl oxygen) (By similarity).

Calcium 4 (via carbonyl oxygen) (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               similarity).
Calcium 4 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-linked (GlcNAc. . .) (Potential)
N-linked (GlcNAc. . .) (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zinc 1 (By similarity).
Zinc 1 (By similarity).
Calcium 3 (By similarity).
Calcium 3 (via carbonyl oxygen)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Zinc 1 (By similarity).
Calcium 2 (via carbonyl oxygen)
similarity).
Calcium 2 (via carbonyl oxyden)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (via carbonyl oxygen)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    similarity).
Calcium 4 (via carbonyl oxygen)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 60; DB 1; Length 662; 100.0%; Pred. No. 0.045; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cysteine switch (Potential).
                                                                                                                                                                                                                                                                                               Potential.
Activation peptide.
72 kDa type IV collagenase.
Fibronectin type-II 1.
Fibronectin type-II 2.
Fibronectin type-II 3.
                                                                                                                                                                                                                                                                                                                                                                                                            Hemopexin-like.
Collagenase-like 1.
Collagenase-like 2.
Collagenase-like 2.
By similarity.
Calcium 1 (By similarity).
Calcium 2 (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1CC246B270E440C8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     662 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     By similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                   Pfam; PF03933; Peptidase_M10_N; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         73803 MW;
                                   PRINTS; PR00013; FNTYPEII
PRINTS; PR00138; MATRIXIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               211
403
407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     662 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                      2004
2008
2009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               211
403
407
413
478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  571
                                                                                                                                                                                                                                                                                   Zinc; Zymogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 16
MMP2_RAT
ID MMP2_RAT
                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
REGION
REGION
REGION
ACT_SITE
METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                    CHAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                   SIGNAL
                                                                                                                                                                                                                                                                                                                      PROPEP
                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     METAL
 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bloinformatics and the EMBL outstation the Ruropean Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE-Joaquese white; TISSUE-Articular joint;

MEDLINE-Joaquese white; TISSUE-Articular joint;

MEDLINE-Joaquese white; TISSUE-Articular joint;

MEDLINE-Joaquese white; Dubdes 1679695; DOI=10.1016/0167-4781(96)00050-4;

MATSUMCTO S., Katoh M., Watanabe T., Masuho Y.;

MATSUMCTO S., Katoh M., Watanabe T., Masuho Y.;

Expression at several tissues.";

Biochim. Biophys. Acta 1307:137-139(1996).

CATALYTIC ACTIVITY: Cleaves of gelatin type I and collagen types

IV, W. VII, X. Cleaves the collagen-like sequence Pro-Gln-Gly-|-

COPACTOR: Binds 4 calcium ions per subunit (By similarity).

COPACTOR: Binds 2 zinc ions per subunit (By similarity).

COPACTOR: Binds 2 zinc ions per subunit (By similarity).

COPACTOR: Dinds 2 zinc ions per subunit (By similarity).

COPACTOR: Dinds 2 zinc ions per subunit (By similarity).

COPACTOR: Binds 4 calcium in alpha-V/beta-3.

COPACTOR: Binds 2 zinc ions per subunit (By similarity).

COPACTOR: Binds 2 zinc ions per subunit (By similarity).

COPACTOR: Binds 2 zinc ions per subunit (By similarity).

COPACTOR: Binds 2 zinc ions per subunit (By similarity).

COPACTOR: Binds 2 zinc ions per subunit (By similarity).

COPACTOR: Binds 4 calcium in alpha-V/beta-3.

COPACTOR: Binds 5 cinc in alpha-V/beta-3.

COPACTOR: Binds 4 calcium in alpha-V/beta-3.

COPACTOR 5 calcium in alpha-V/beta-3.
                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Oryctolagus cuniculus (Rabbit).
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi;
Mammalia, Butheria, Buarchontoglires, Glires, Lagomorpha, Leporidae,
             similarity).
Calcium 4 (via carbonyl oxygen) (By similarity).
Calcium 4 (via carbonyl oxygen) (By similarity).
Cysteine switch (Potential).
N-linked (GlcNAc. . .) (Potential).
By similarity.
GG30A7DBDB272F02 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
13-SEP-2005 (Rel. 48, Last annotation update)
72 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A).
                                                                                                                                                                                                                                                              ö
Calcium 4 (via carbonyl oxygen)
                                                                                                                                                                                                                     100.0%; Score 60; DB 1; Length 662; 100.0%; Pred. No. 0.045; O. Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                  662 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  InterPro; IPR000562; FN type2_col_bd.
InterPro; IPR000585; Hemopexin.
InterPro; IPR001818; Pept_M10A_M12B.
InterPro; IPR006025; Pept_M2B.
InterPro; IPR006026; Peptidase_M.
Pfam; PP00040; fn2; 3.
Pfam; PP00045; Hemopexin; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; D63579; BAA09796.1; -; mRNA.
PIR; S70365; S70365.
                                                                                                                                                                                   74102 MW;
                                                                                                                                                                                                     Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
                                                                                                                                                                                                                                                                                                                109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                               1 NYNPFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                 662 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HSSP; P08253; 1QIB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Oryctolagus.
NCBI_TaxID=9986;
                                                                      620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEROPS; M10.003;
                                 571
                                                                                                                                                                                                                                                                                                                                                                                                        MMP2 RABIT
ID MMP2 RABIT
AC P50757;
                                                                                                                         CARBOHYD
CARBOHYD
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        removed.
                                                                    METAL
                                 METAL
```

9

ö

Gape

ö

いる 海 一時、

```
Hydrolase; Metal-binding; Metalloprotease; Protease; Repeat; Signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                   74182 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-JUL-2004 (TrEMBLrel. 27, 05-JUL-2004 (TrEMBLrel. 27, 05-JUL-2004 (TrEMBLrel. 27,
                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.vv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 17
OGGMAP RAT
ID QGGMAP RAT PRELIMINARY;
AC QGGMAP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               204
208
208
209
211
403
413
413
                                                                                                                                                                                                                                                                                                                                                               575
644
662
42
286
369
586
                193
                                                                                                                                                                                                                                                                                                                                      620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                     523
                                                                                                                                                                                                                                                                                                                      571
                                                                                                                                                                                                                                                                                                                                                                                                                 435
586
662 AA;
                                                                                                                                                                       193
                                                                                                                                                                                                                 204
206
208
208
209
211
211
403
407
413
                                                                                                                                                                                                                                                                                                                                      620
                                                                                                                                                                                                                                                                                                     523
                                                                                                                                                                                                                                                                                                                      571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mmp2 protein.
        Zinc; Zymogen
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Name=Mmp2;
                               CHAIN
DOWAIN
DOWAIN
DOWAIN
REGION
REGION
REGION
REGION
                                                                                                                                                                                                                                                                                                                                                                                      CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     109
                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                         ROPEP
                                                                                                                                              METAL
METAL
                                                                                                                                                                                                                          METAL
METAL
METAL
METAL
METAL
METAL
                                                                                                                             METAL
                                                                                                                                                                                                                                                                                    METAL
                                                                                                                                                                                                                                                                                                     METAL
                                                                                                                                                                                                                                                                                                                      METAL
                                                                                                                                                                       METAL
                                                                                                                                                                                METAL
                                                                                                                      METAL
                                                                                                                                       WETAL
                                                                                                                                                                                                 METAL
                                                                                                                                                                                                                  METAL
                                                                                                                                                                                                                                                                             WETAL
                                                                                                                                                                                                                                                                                                                                      WETAL
                                                                                                                                                                                                                                                                                                                                                       SITE
 CCSCEPTIFE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     쉼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                     This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EWED outstation the Buropean Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                 Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Buarchontoglires; Glires; Rodentia; Sciurognathi;
Muroidea; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS00546; CYSTEINE SWITCH; 1.
PROSITE; PS00023; FN2_1; 3.
PROSITE; PS00024; HN2_2; 3.
PROSITE; PS00024; HEMOPEXI; 1.
PROSITE; PS00142; ZINC PROTEASE; 1.
Calcium; Collagen degradation; Extracellular matrix; Glycoprotein;
                                                                                                                    MEDLINE-97249363; PubMed-7916617; Martin J., Lovett D.H.; Marti H.P., McMeil L., Davies M., Martin J., Lovett D.H.; Honology cloning of rat 72 kDa type IV collagenase: cytokine and second-messenger inducibility in glomerular mesangial cells."; Biochem. J. 291:441-446 (1993).
       01-FEB-1994 (Rel. 28, Created)
01-FEB-1994 (Rel. 28, Last sequence update)
13-SEP-2005 (Rel. 48, Last annotation update)
72 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A)
                                                                                                                                                                                                                                                                                                                                                                              EMBL; X71466; CAA50583.1; -; mRNA.

EMBL; U65656; AAB41692.1; -; mRNA.

PIR; X34780; 334780.

HSSP; RA180.334780.

MEROPS; M10.003; -.

RGD; 621316; Mmp2.

GO; GO:0004228; F:gelatinase A activity; IDA.

GO; GO:0008237; F:metallopeptidase activity; TAS.

InterPro; IPR00562; FN type2 col.

InterPro; IPR00188; Hemopexin.

InterPro; IPR001818; Pept_MIOA_MI2B.

InterPro; IPR006025; Pept_MIOA_MI2B.

InterPro; IPR006025; Pept_MIOA_MI2B.

InterPro; IPR006025; Peptidase_M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fram; PRO0045; Februage—II.
Pfam; PRO0045; Hemopexin; 4.
Pfam; PRO0045; Hemopexin; 4.
Pfam; PRO013; Peptidase M10; 1.
PRINTS; PRO013; FNTYPEII.
PRINTS; PRO0138; FNTYPEII.
PROMO PRO00995; FN Type—II; 3.
SWART; SW00059; FN2; 3.
                                                                                                                                                                        NUCLEOTIDE SEQUENCE.
STRAIN=Wistar; TISSUE=Skin;
                                                           Rattus norvegicus (Rat).
                                                                                                              NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                 removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SMART;
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rattus norvegicus (Rat).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
Activation peptide.
72 kDa type IV collagenase.
72 kDa type IV collagenase.
73 kDa type IV collagenase.
74 kDronectin type-II 1.
75 kDronectin type-II 2.
76 kDronectin type-II 3.
76 kDagenase-like 1.
76 kDagenase-like 1.
76 kDagenase-like 2.
76 kDagenase-like 2.
76 kDagenase-like 3.
76 kDagenase-like 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Calcium 2 (via carbonyl oxygen) (By similarity).
Calcium 2 (By similarity).
Zinc 1 (By similarity).
Calcium 3 (By similarity).
Calcium 1 (By similarity).
Calcium 3 (By similarity).
Zinc 2 (catalytic) (By similarity).
Calcium 4 (via carbonyl oxygen) (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cysteine switch (Potential).
N-linked (GlcNAc. .) (Potential).
N-linked (GlcNAc. .) (Potential).
By similarity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Calcium 4 (via carbonyl oxygen) (By similarity).
Calcium 4 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    calcium 4 (via carbonyl oxygen) (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (via carbonyl oxygen)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    calcium 2 (via carbonyl oxygen)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 60; DB 1; Length 662; Pred. No. 0.045; 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Zinc 1 (By similarity)
Calcium 2 (via carbony
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A -> S (in Ref. 2).
A -> G (in Ref. 2).
N -> S (in Ref. 2).
H -> N (in Ref. 2).
A -> S (in Ref. 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7496B34B0A21884B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           662 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Calcium 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
```

```
MEDLINE-223825; PubMed=12477932; DOI=10.1073/pnas.242603899;
MEDLINE-223825; PubMed=12477932; DOI=10.1073/pnas.242603899;
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Haieh F.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Heigh F.,
Stapleton M., Saares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
Brownstein M.J., Uddin T.B., Toshiyuki S., Carninoi P., Prange C.,
A Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Millahy S.J.,
Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Milching M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Blakesley R.W., Touchman J.W., Green B.D., Dickson M.C.,
Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
Cheneration and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Calcium, Hydrolase, Metal-binding, Metalloprotease, Protease, Zinc.
SEQUENCE 662 AA, 74149 MW, C56BD787473FC03E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                          EMBL; BC074013; ABH7013.1; -; mRNA.

R GO; GO:0005578; C:extracellular matrix (sensu Metazoa); IEA.

GO; GO:000422; F:metalloendopeptidase activity; IEA.

GO; GO:0006508; F:metalloendopeptidase activity; IEA.

R InterPor; IPR000562; F:morion binding; IEA.

R InterPor; IPR000562; FW type2 col_bd.

R InterPor; IPR000658; Hemopexin.

R InterPor; IPR0006026; Pept M.Zn_BS.

R InterPor; IPR0006026; Pept M.Zn_BS.

R InterPor; IPR0006026; Pept M.Zn_BS.

R Pfam; PF00040; Ed.; A.

R Pfam; PF00041; FP00411; Peptidase M.N; 1.

R Pfam; PR00413; Peptidase M.N; 1.

R PRINTS; PR00138; MATRXIN.

R SMART; SM00120; FN2; 3.

R SMART; SM00120; HX; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 60; DB 2; Length 662; 100.0%; Pred. No. 0.045;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                   Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                         and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           663 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (Rel. 35, Created)
(Rel. 35, Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SMARY; SM00235; ZNMC; 1.
PROSITE; PS00546; CYSTEINE_SWITCH; 1.
PROSITE; PS01023; FNZ_1; 3.
PROSITE; PS51092; FNZ_2; 3.
PROSITE; PS00024; HEMÖPEXIN; 1.
PROSITE; PS00142; ZINC_PROTEASE; 1.
Muroidea; Muridae; Murinae; Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                           NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
hes 10; Conserv
          NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                       NIH MGC Project;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 18
MMP2_CHICK
ID MMP2_CHICK
AC Q90611;
DT 01-NOV-1997
DT 01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOV-1997
01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                          TISSUE=Lung;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ሯ
```

```
This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -!- COFACTOR: Binds 4 calcium ions per subunit (By similarity).
-!- COFACTOR: Binds 2 zinc ions per subunit (By similarity).
-!- SUBUNIT: Ligand for integrin alpha-V/beta-3.
-!- TISSUE SPECIFICITY: Produced by normal skin fibroblasts.
-!- PTM: The propebtide is processed by MMP14 (MT-MMP1) and MMP16 (MT-MMP3) (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (gelatinase) that is elevated in Rous sarcoma virus transformed chicken embryo fibroblasts.";
J. Biol. Chem. 266:5113-5121(1991).
--- CATALYIIC ACTIVITY: Cleavage of gelatin type I and collagen types IV, V, VII, X. Cleaves the collagen-like sequence Pro-Gln-Gly-Ile-Ala-Gly-Gln.
                                                                                                                                                                                Gallus gailus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Aimes R.T., French D.L., Quigley J.P., Carloning of a 72 kDa matrix metalloproteinase (gelatinase) from chicken embryo fibroblasts using gene family PCR: expression of the Biochem. J. 300:729-736 (1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROTEIN SEQUENCE OF 27-41 AND 107-122.

**REDILINE-21161603; PubMed-1848240; Youngleib G.L., Quigley J.P.; Chen J.-M., Almes R.T., Ward G.R., Youngleib G.L., Quigley J.P.; "Isolation and characterization of a 70-kDa metalloprotease"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS00142; ZINC_PROTEASE; 1.
Calcium; Collagen degradation; Direct protein sequencing;
Extracellular matrix; Hydrolase; Metal-binding; Metalloprotease;
Protease; Repeat; Signal; Zinc; Zymogen.
13-SEP-2005 (Rel. 48, Last annotation update)
72 kDa type IV collagenase precursor (EC 3.4.24.24) (72 kDa gelatinase) (Matrix metalloproteinase-2) (MMP-2) (Gelatinase A)
Name=MMP2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MMP3) (By similarity).
--- SIMILARITY: Belongs to the peptidase M10A family.
--- SIMILARITY: Contains 3 fibromectin type-II domains.
--- SIMILARITY: Contains 1 hemopexin-like domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ensembl; ENSGALGO0000003580; Gallus gallus.
InterPro; IPR000562; FN type2_col_bd.
InterPro; IPR000585; Hemopexin.
InterPro; IPR01818; Pept_MIOA_MI2B.
InterPro; IPR006025; Pept_M Zn BS.
InterPro; IPR006025; PeptIdase_M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SMAKT; SM00235; ZNMC; 1.
PROSITE; PS00546; CYSTBINE_SWITCH; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; U07775; AAA19596.1; -; mENA.
PIR; S464492; 846492.
HSSP; P008253; 1QIB.
MEROPS; M10.003; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PP00040; fn2; 3.
Pfam; PF00045; Hemopexin; 4.
Pfam; PF00413; Peptidase M10; 1.
PRINTS; PR00013; FWIYERII.
PRINTS; PR00133; PATRIXIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=94280397; PubMed=8010954;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProDom; PD000995; FN_Type_II; 3.
SMART; SM00059; FN2; 3.
SMART; SM00120; HX; 4.
SMART; SM00120; TX; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00024; HEMOPEXIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00023; FN2 1; 3
PROSITE; PS51092; FN2 2; 3
                                                                                                                                                                                                                                                                                                                                                                                                                NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                removed
```

```
ö
                                                  Collagenase-like 1.
Collagenase-like 1.
Collagenase-like 2.
By similarity.
Calcium 1 (By similarity).
Zinc 1 (By similarity).
Zinc 1 (By similarity).
Zinc 3 (similarity).
Calcium 3 (By similarity).
Calcium 3 (By similarity).
Calcium 3 (By similarity).
                                                                                                                                                                      similarity).
Calcium 2 (By similarity).
Calcium 3 (By similarity).
Calcium 1 (By similarity).
Calcium 1 (By similarity).
Calcium 3 (By similarity).
Calcium 3 (By similarity).
Catalytic) (By similarity).
Zinc 2 (catalytic) (By similarity).
Zinc 2 (catalytic) (By similarity).
Calcium 4 (via carbonyl oxygen) (By similarity).
                                                                                                                                                                                                                                                        Calcium 4 (via carbonyl oxygen) (By similarity).
Calcium 4 (via carbonyl oxygen) (Bv
                                                                                                                                                                                                                                                                                   similarity).
Calcium 4 (via carbonyl oxygen) (By
similarity).
                                                                                                                                                  (By
                                                                                                                                                  (via carbonyl oxygen)
                                                                                                                                                         similarity).
Calcium 2 (via carbonyl oxygen)
                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 60; DB 1; Length 663; 100.0%; Pred. No. 0.045; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                        Cysteine switch (Potential).
By similarity.
P -> Q (in Ref. 2).
W -> T (in Ref. 2).
T -> I (in Ref. 2).
W, 8D6FDA4E67C3EBCA.CRC64;
       Activation peptide.
72 kDa type IV collagenase.
Fibronectin type-II 1.
Fibronectin type-II 2.
Fibronectin type-II 3.
Hemopexin-like.
                                                                                                                                        Zinc 1 (By similarity)
Calcium 2 (via carbony
                                                                                                                                                                                                                                                                                                                        40 P
116 W
122 T
74941 MW;
                                                                                                                                                                                                                                                                                                                                                                             Conservative
26
6663
3389
3389
3393
3393
3393
1131
1131
1145
1177
                                                                                                                                         190
                                                                                                                                                                199
                                                                                                                                                                               201
203
205
205
208
400
410
410
                                                                                                                                                                                                                                                            524
                                                                                                                                                                                                                                                                           572
                                                                                                                                                                                                                                                                                                        99
663
                                                                                                                                                                                                                                                                                           621
                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Local 10; Conserve
                                                                                                                                                                                                                                                                                                         99
472
40
116
122
663 AA;
 190
                                                                                                                                                                199
                                                                                                                                                                               201
203
205
206
208
400
410
410
                                                                                                                                                                                                                                                            524
                      DOMAIN
DOMAIN
DOMAIN
DOMAIN
REGION
REGION
ACT SITE
METAL
METAL
                                                                                                                                                                                                                                                                                                        SITE
DISULPID
CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                                                                                           METAL
METAL
METAL
                                                                                                                                                  METAL
                                                                                                                                                                METAL
                                                                                                                                                                              METAL
                                                                                                                                                                                              METAL
METAL
METAL
METAL
METAL
METAL
                                                                                                                                                                                                                                                            METAL
                                                                                                                                                                                                                                                                            METAL
                                                                                                                                                                                                                                                                                           METAL
                                                                                                                                         METAL
```

셤

1 NYNFFPRKPK 10

ઠ

Gaps

ô

Search completed: February 21, 2006, 18:42:03 Job time : 100.263 secs

& NUTY S

GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd. Copyright

OM protein - protein search, using sw model

February 21, 2006, 17:57:40 ; Search time 101.053 Seconds (without alignments) 43.480 Million cell updates/sec Run on:

US-10-601-059-13 60 Title: Perfect score:

1 NYNFFPRKPK 10 Sequence: BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

2443163 segs, 439378781 residues Searched:

9 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 100% Maximum Match 100% Listing first 500 summaries

geneseqp20008:* geneseqp20018:* geneseqp20028:* geneseqp2003a8:* geneseqp2003b8:* geneseqp20048:* geneseqp1980s:* geneseqp1990s:* A_Geneseq 21:* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES æ

	Description	Abp97135 Human mat		Adq17096 Human mat		Abp97133 Human mat	Abg76319 Human mat		Adv68475 Human mat	Aay07368 Matrix me	Aay07359 Matrix me		Abg76323 Partial 8	Adq17098 Human mat	Adv68479 Human mat	Abp97124 Human mat				Aam30829 Peptide #	Abb22666 Protein #	Abg40146 Human pep	Novel	Adf59546 Human pol	Aea90447 Human lun
	a	ABP97135	ABG76321	ADQ17096	ADV68477	ABP97133	ABG76319	ADQ17094	ADV68475	AAY07368	AAY07359	ABP97137	ABG76323	ADQ17098	ADV68479	ABP97124	ABG76310	ADQ17085	ADV68466	AAM30829	ABB22666	ABG40146	AEA20074	ADF59546	<b>AEA90447</b>
	DB	ه ا	ø	80	σ	9	9	89	σ	~	7	9	9	80	σ	9	9	æ	σ	4	4	ß	6	7	σ
	Query Match Length DB	10	10	10	10	19	19	19	19	20	23	43	43	43	43	44	44	44	44	75	75	75	194	445	462
dР	Query Match	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Score	09	9	9	9	09	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	esult No.	-	7	m	4	2	ø	7	60	თ	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Abg24001 Novel hum	22	Aap96143 Sequence		Aar07969 Complete		Human	Adm48668 Human mat	Adt05996 Human mat	Adt05997 Mouse mat	0 Human	Aar06420 Type IV c		н	Human		8		Abp97136 Human mat	Aao16608 Human mat	2 Human	Add18578 Human dis	Adp65244 Human mat	Adn07697 Human mat	Adg17097 Human mat	Adv90301 Protease-	Adv68478 Human mat	7	0	٠.	_		Adt05995 Chicken m	4 Human	Aea20970 Novel hum	Abg23999 Novel hum
4 ABG24001	8 ABM84057			2 AAR07969	AAY0735	2 AAW41226	7 ADM48668	8 ADT05996								5 AAU84348		6 ABP97136									•		·					9 AEA20970	4 ABG23999
468	623	631	631	631	631	631	631	631	633	644	099	099	099	099	099	099	099	099	099	099	99	099	99	99	99	9	662	662	663	663	663	663	708	708	1330
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	8	8	100.0	80	100.0	ö	8	ö	8	00	00	100.0	00	8	100.0
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	56			29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	20	51	52	23	54	52	26	57	28	29	09

## ALIGNMENTS

ABP97135 standard; peptide; 10 AA. RESULT 1 ABP97135

ABP97135;

(first entry) 24 - JUN - 2003 Human matrix metalloproteinase 2 cleavage region peptide SEQ ID NO:13.

Human; matrix metalloproteinase; MMP; anticancer; wound healing; matrix metalloproteinase inhibitor; antitumour; antiangiogenic; cardiant; vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic; vulnerary; cerebroprotective; antidiabetic; ophthalmological; tumour; dermatological; metastatic; non-metastatic; vascularised; heart disease; non-vascularised; surgical incision; chronic wound; stroke; angiogenesis; macular degeneration; diabetic retinopathy; cleavage region. 

Homo sapiens.

WO2003018748-A2.

06-MAR-2003.

15-AUG-2002; 2002WO-US026319.

16-AUG-2001; 2001US-0312726P. 21-DEC-2001; 2001US-00032376. 21-MAY-2002; 2002US-00153185.

(KIMB ) KIMBERLY-CLARK WORLDWIDE INC.

```
The present invention describes an anti-angiogenic composition (I) for inhibiting expression of vascular endothelial growth factor (WGGF). (I) comprises an effective amount of a peptide inhibitor of matrix comprises an effective amount of a peptide inhibitor of matrix antidiabetic, ophthalmological and dermaclogical activities. (I) can be artidiabetic, ophthalmological and dermaclogical activities. (I) can be used for inhibiting expression of VGGF, and so can be used for inhibiting expression of VGGF, and so can be used for inhibiting convert of tumours and diminishing tumours size. The tumour can be createfact, non-metastatic, vascularised, non-vascularised, hard or soft. (I) is also useful for treating injuries including wounds, surgical incisions, chronic wounds, heart diseases and stroke. (I) is also useful for treating disorders characterised by excessive angiogenesis e.g. macular degeneration and diabetic retinopathy. The present sequence represents a human MMP cleavage region peptide, which is used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2;
cleavage region; proenzyme form; cellular proliferation; fibroblast;
keratinocyte; healthy skin development; wound healing; scarring;
skin tone; wrinkle; anti-aging; vulnerary.
                                                                   Anti-angiogenic composition comprising peptide inhibitor of matrix metalloproteinase, useful for decreasing the expression of vascular endothelial growth factor and treating cancers and tissue injuries.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human matrix metalloproteinase (MMP) peptide inhibitor #13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 60; DB 6; Length 10; 100.0%; Pred. No. 0.00098;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Quirk S, Malik S, Villanueva JM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABG76321 standard; peptide; 10 AA.
                                                                                                                                          Claim 17; Page 45; 103pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-AUG-2002; 2002WO-US026198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-289980/28.
                               WPI; 2003-381408/36
Weart IF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO2003016520-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 10 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABG76321;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Quirk S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             peptides that are useful as agents to maintain healthy skin and to promote the condition of the skin. The invention is useful for increasing the amount of fibronectin in tissue. The invention is also useful for encouraging the maintenance and development of healthy skin, preventing and treating wrinkles and for treating wounds. The invention acts as unlergary and dermatological agents. The present sequence is human matrix metalloproteinase (MMP) cleavage region peptide. This sequence is used in the exemplification of the invention.
                                                The present invention relates to peptide inhibitors of metalloproteinases
                                                           (MMPB), particularly metalloproteinase-2 (MMP-2). The inhibitors have peptide sequences related to the cleavage regions of the promoryme forms of the MMPS. The peptide inhibitors are useful for stimulating cellular proliferation of fibroblasts or keratinocytes, promoting healthy skin development, treating wounds, preventing scarring, improving skin tone, reducing wrinkling and for simulating the development of smooth, healthy skin. The peptide inhibitors are useful as anti-aging and wound healing compounds. ABG76309-ABG76321 represent peptide inhibitors of MMPs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention provides peptides and compositions containing such
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Composition used for preventing and treating wrinkles and treating wow comprises peptide having sequence related to matrix metalloproteinase
                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fibronectin; healthy skin; wrinkle; wound; vulnerary; dermatological;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human matrix metalloproteinase-2 (MMP2) cleavage region peptide #4.
                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                         Length 10;
                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                           ;
                                                                                                                                                                                                                                                         Score 60; DB 6; 1
Pred. No. 0.00098;
                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 1; SEQ ID NO 13; 60pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           human; matrix metalloproteinase; MMP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADQ17096 standard; peptide; 10 AA.
                Claim 1; Page 44; 120pp; English.
                                                                                                                                                                                                                                                         100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-DEC-2002; 2002US-00335207.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-DEC-2002; 2002US-00335207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                              10
                                                                                                                                                                                                                                                                                                                                                                1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                            1 NYNFFPRKPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2004-506456/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MALIK S.
QUIRK S.
                                                                                                                                                                                                                        Sequence 10 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US2004127421-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 10 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JUL-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-SEP-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 proenzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADQ17096;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Malik S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (MALI/) |
(QUIR/) (
                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 3
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
```

Length 10;

DB 8;

100.0%; Score 60;

Query Match

Novel peptide inhibitor of proteinase activity of matrix metalloproteinases, e.g. matrix metalloproteinase-2, useful for stimulating cellular proliferation of fibroblasts or keratinocytes.

NYNFFPRKPK 10

```
셤
                                                                                                                                                                    ਠੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This invention relates to a novel composition for inhibiting growth of chondrosarcoma cells comprising an amount of a peptide and a chondrosarcoma cells comprising an amount of a peptide and a chondrosarcoma cells comprising an amount of a peptide and a chondrosarcomical carrier. The invention may be useful for the production of compounds with a cytostatic activity acting as metalloprotease 1 inhibitors, metalloprotease 5 inhibitors, metalloprotease 5 inhibitors, metalloprotease 6 inhibitors, metalloprotease 7 inhibitors, metalloprotease 9 inhibitors, metalloprotease 10 inhibitors, metalloprotease 11 inhibitors, metalloprotease 11 inhibitors, compassing metalloprotease 12 inhibitors, metalloprotease 13 inhibitors, composition is useful for decreasing and inhibiting the growth of chondrosarcoma cells which in turn inhibits conditionated by the inhibition of the invention in the development of a composition of the invention.
                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A composition for decreasing and inhibiting the growth of chondrosarcoma cells, useful for treating chondrosarcomas and bone cancer, comprises a matrix metalloproteinase inhibitor.
                                                                                                                                                                                                                                                                                                                                     Human matrix metalloproteinase-2 cleavage region polypeptide SeqID13.
                                                                                                                                                                                                                                                                                                                                                                               growth; pharmaceutical; cytostatic; metalloprotease 1 inhibitor;
                        Gaps
                        ö
                                                                                                                                                                                                                                                                                                                                                                                                   metalloprotease 2 inhibitor; metalloprotease 3 inhibitor; metalloprotease 4 inhibitor; metalloprotease 5 inhibitor; metalloprotease 6 inhibitor; metalloprotease 7 inhibitor; metalloprotease 8 inhibitor; metalloprotease 9 inhibitor; metalloprotease 10 inhibitor; metalloprotease 11 inhibitor; metalloprotease 12 inhibitor; metalloprotease 11 inhibitor; metalloprotease inhi
                        Indels
                     ö
100.0%; Pred. No. 0.00098;
                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 16; SEQ ID NO 13; 50pp; English.
                                                                                                                                                                                                          ADV68477 standard; peptide; 10 AA.
                     ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-JUN-2003; 2003US-00601059.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-JUN-2003; 2003US-00601059
                                                                                                                                                                                                                                                                                             (first entry)
                   10; Conservative
                                                                                   1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2005-047374/05
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (YANG/) YANG S.
(QUIR/) QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US2004259802-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                             10-MAR-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 10
                                                                                                                                                                                                                                                    ADV68477;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Yang S,
                     Matches
                                                                                                  셤
                                                                                                                                                                                                              ઠ
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                  Human; matrix metalloproteinase; MMP; anticancer; wound healing; matrix metalloproteinase inhibitor; anticumour; antianglogenic; cardiant; vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic; vulnerary; cerebroprotective; antidiabetic; ophthalmological; tumour; dermatchological; metagetalic; non-metastatic; vascularised; heart disease; non-vascularised; surgical incision; chronic wound; stroke; angiogenesis; macular degeneration; diabetic retinopathy; cleavage region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention describes an anti-angiogenic composition (I) for inhibiting expression of vascular endothelial growth factor (VEGF). (I) comprises an effective amount of a peptide inhibitor of matrix metalloproteinase (MMP), where the peptide inhibit the expression of WEGF. (I) has cytostatic, vulnerary, cardiant, cerebroprotective, antidiabetic, ophthalmological and dermatological activities. (I) can be used for inhibiting expression of VEGF, and so can be used for inhibiting expression of VEGF, and so can be used for inhibiting growth of tumours and diminishing tumours size. The tumour can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             metastatic, non-metastatic, vascularised, non-vascularised, hard or soft.

(I) is also useful for treating injuries including wounds, surgical incisions, chronic wounds, heart diseases and stroke. (I) is also useful for treating disorders characterised by excessive angiogenesis e.g.
                                                                                                                                                                                                                                                                                                         Human matrix metalloproteinase 2 cleavage region peptide SEQ ID NO:11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        macular degeneration and diabetic retinopathy. The present sequence represents a human MMP cleavage region peptide, which is used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Anti-angiogenic composition comprising peptide inhibitor of matrix metalloproteinase, useful for decreasing the expression of vascular endothelial growth factor and treating cancers and tissue injuries.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 60; DB 6; Length 19; 100.0%; Pred. No. 0.0019; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                     ABP97133 standard; peptide; 19 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 17; Page 45; 103pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-AUG-2002; 2002WO-US026319.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-381408/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Quirk S, Weart IF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO2003018748-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 19 AA;
                                                                                                                                                                                                                                24-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-MAR-2003
                                                                                                                                                      ABP97133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loca
Matches
RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
```

ö

Gaps

ö

0; Indels

100.0%; Score 60; DB 9; Length 10; 100.0%; Pred. No. 0.00098;

0; Mismatches

10; Conservative

Local Similarity

Best Loca Matches

Query Match

us-10-601-059-13.rag

```
20-JUN-2003; 2003US-00601059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 NYNFFPRKPK 10
                                                                                                                                                                                  WPI; 2004-506456/48
                                                                                                                                                            Quirk S;
                                                                                                                         (MALI/) MALIK S. (QUIR/) QUIRK S.
                                US2004127421-A1
                                                                                                                                                                                                                                                                                                                                                                                            Sequence 19 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US2004259802-A1
          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-MAR-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-DEC-2004
                                                                                                                                                                                                                               proenzyme.
                                                                                                                                                           Malik S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADV68475;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4DV68475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to peptide inhibitors of metalloproteinases (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have peptide sequences related to the cleavage regions of the proenzyme forms of the MMPS. The peptide inhibitors are useful for stimulating cellular proliferation of fibroblasts or keratinocytes, promoting healthy skin development, treating wounds, preventing scarring, improving skin tone, reducing wrinkling and for simulating the development of smooth, healthy skin. The peptide inhibitors are useful as anti-aging and wound healing compounds. ABG76309-ABG76321 represent peptide inhibitors of MMPs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fibronectin; healthy skin; wrinkle; wound; vulnerary; dermatological; human; matrix metalloproteinase; MMP.
                                                                                                                        Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2; cleavage region; proconzyme form; cellular proliferation; fibroblast; keratinocyte; healthy skin development; wound healing; scarring; skin tone; wrinkle; anti-aging; vulnerary.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                         Novel peptide inhibitor of proteinase activity of matrix metalloproteinases, e.g. matrix metalloproteinase-2, useful for stimulating cellular proliferation of fibroblasts or keratinocytes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human matrix metalloproteinase-2 (MMP2) cleavage region peptide #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                   Human matrix metalloproteinase (MMP) peptide inhibitor #11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 60; DB 6; Length 19; 100.0%; Pred. No. 0.0019; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                        (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                                                                                                               Quirk S, Malik S, Villanueva JM;
                               ABG76319 standard; peptide; 19 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADQ17094 standard; peptide; 19 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Page 44; 120pp; English
                                                                                                                                                                                                                                                                         16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                                                                                                                                                                                     15-AUG-2002; 2002WO-US026198
                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-289980/28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
Matches 10; Conser
                                                                                                                                                                                                        WO2003016520-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 19 AA;
                                                                            10-MAY-2003
                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                               27-FEB-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-SEP-2004
                                                      ABG76319;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADQ17094;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 7
ADQ17094
                                $$$$$$$$$$$
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                peptides that are useful as agents to maintain healthy skin and to promote the condition of the skin. The invention is useful for increasing the amount of fibronectin in tissue. The invention is also useful for increasing encouraging the maintenance and development of healthy skin, preventing and treating wrinkles and for treating wounds. The invention acts as vulnerary and dermatological agents. The present sequence is human matrix metalloproteinase (MMP) cleaves region peptide. This sequence is used in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Composition used for preventing and treating wrinkles and treating wounds comprises peptide having sequence related to matrix metalloproteinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention provides peptides and compositions containing such
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cell growth; pharmaceutical; cytostatic; metalloprotease 1 inhibitor; metalloprotease 2 inhibitor; metalloprotease 3 inhibitor; metalloprotease 4 inhibitor; metalloprotease 5 inhibitor; metalloprotease 6 inhibitor; metalloprotease 7 inhibitor; metalloprotease 8 inhibitor; metalloprotease 9 inhibitor; metalloprotease 10 inhibitor; metalloprotease 11 inhibitor; metalloprotease 12 inhibitor; metalloprotease 13 inhibitor; metalloprotease 13 inhibitor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human matrix metalloproteinase-2 cleavage region polypeptide SeqID11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 60; DB 8; Length 19; 100.0%; Pred. No. 0.0019;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 11; SEQ ID NO 11; 60pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADV68475 standard; peptide; 19 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-JUN-2003; 2003US-00601059
30-DEC-2002; 2002US-00335207
                                                                                    30-DEC-2002; 2002US-00335207
```

(YANG/)

Yang S,

```
metallo:proteinase peptide(s) - used to inhibit enzyme in treating damage caused by activated enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matrix metalloprotease, inhibitor, tissue damage; angiogenesis, antibody; arthritis; tumour growth; granulomatous inflammatory condition; enzyme; metastasis; sarcoidosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matrix metallo:proteinase peptide(s) - used to inhibit enzyme in treating tissue damage caused by activated enzyme.
                                                                                                                                                                                       IV matrix metalloprotease (MMP) protein. The invention relates to MMP inhibitor peptides which can be used to treat tissue damage caused by activated MMPs. e.g. for treating inappropriate angiogenesis, arthritis, tumour growth, invasion and metastasis and granulomatous inflammatory conditions such as sarcoidosis. Also antibodies to the peptides can be used to detect the MMPs and can distinguish activated from latent enzyme. (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PI field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This peptide represents a matrix metalloprotease (MMP) inhibitor peptide of the invention. The peptides can be used to treat tissue damage caused by activated MMPB, e.g. for treating inappropriate angiogenesis, arthritis, tumour growth, invasion and metastasis and granulomatous inflammatory conditions such as sarcoidosis. Antibodies to the peptides can be used to detect the MMPB and can distinguish activated from latent
                                                                                                                                                                       This sequence represents an antigenic peptide derived from a human type
                                                                                                                                                                                                                                                                                                                                                                                                                                       2; Length 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 60; DB 2; L
100.0%; Pred. No. 0.002;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matrix metalloprotease inhibitor peptide #23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Stetlerste W, Krutzsh H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY07359 standard; peptide; 23 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 1; Page 15; 61pp; English
                                                                                                                              Example 3; Page 34; 61pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 89US-00317407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90US-00488460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              89US-00317407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (USDC ) US SEC OF COMMERCE. (USSH ) NAT INST OF HEALTH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1990-290458/38.
                      WPI; 1990-290458/38
                                                                                                                                                                                                                                                                                                                                                                                            Sequence 20 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAR-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAR-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-FEB-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-MAR-2003
16-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9010228-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-SEP-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Liotta LA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY07359;
                                                             Matrix |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY07359
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                   chondrosarcoma cells comprising an amount of a peptide and a pharmaceutical carrier. The invention may be useful for the production of compounds with a cytostatic activity acting as metalloprotease 1 inhibitors, metalloprotease 2 inhibitors, metalloprotease 3 inhibitors, metalloprotease 4 inhibitors, metalloprotease 5 inhibitors, metalloprotease 8 inhibitors, metalloprotease 9 inhibitors, metalloprotease 9 inhibitors, metalloprotease 10 inhibitors, metalloprotease 10 inhibitors, metalloprotease 11 inhibitors, metalloprotease 11 inhibitors or metalloprotease inhibitors, metalloprotease 11 inhibitors or metalloprotease inhibitors. The composition is useful for decreasing and inhibiting the growth of chondrosarcoma size of a bone tumor, useful for treating chondrosarcomas and bone cancers. The present sequence is that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matrix metalloprotease; inhibitor; tissue damage; angiogenesis; antibody; arthritis; tumour growth; granulomatous inflammatory condition; enzyme; metastasis; sarcoidosis; antigen.
                                                                                                                                                                     A composition for decreasing and inhibiting the growth of chondrosarcoma cells, useful for treating chondrosarcomas and bone cancer, comprises a matrix metalloproteinase inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of a peptide derived from a human matrix metalloproteinase which may be used during the development of a composition of the invention.
                                                                                                                                                                                                                                                                                             This invention relates to a novel composition for inhibiting growth of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 60; DB 9; Length 19;
100.0%; Pred. No. 0.0019;
tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matrix metalloprotease antigenic peptide #5.
                                                                                                                                                                                                                                                         Claim 16; SEQ ID NO 11; 50pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Stetlerste W, Krutzsh H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAY07368 standard; peptide; 20 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90US-00488460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            89US-00317407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       89US-00317407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (USDC ) US SEC OF COMMERCE. (USSH ) NAT INST OF HEALTH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 100
10s 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10 NYNFFPRKPK
                                                                                                                          WPI; 2005-047374/05
                                                                                   Quirk S;
                                      QUIRK S.
                  YANG S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 19 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAR-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-FEB-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-SEP-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9010228-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Liotta LA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic.
```

Query Match

셤 ò

ö

Gaps

ö

9

ö

ö

Length 43;

Score 60; DB 6; Pred. No. 0.0043; 0; Mismatches

100.0%;

10

1 NYNFFPRKPK

33 NYNFFPRKPK 42

Partial sequence from human matrix metalloproteinase-2 (MMP-2).

10-MAY-2003 (first entry)

ABG76323;

```
Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2; cleavage region; procenzyme form; cellular proliferation; fibroblast; keratinocyte; healthy skin development; wound healing; scarring; skin tone; wrinkle; anti-aging; vulnerary.
                                                                                                                                                                                   ABG76323 standard; protein; 43 AA.
Query Match
Best Local Similarity luv...
Local 10, Conservative
                                                                                                                                                                                                     Š
                                                                                                         g
                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention describes an anti-angiogenic composition (I) for inhibiting expression of vascular endothelial growth factor (VEGF). (I) comprises an effective amount of a peptide inhibitor of matrix metalloproteinase (WMP), where the peptide an inhibit the expression of antidiabetic, ophthalmological and dermatological activities. (I) has cytostatic, vulnerary, cardiant, cerebroprotective, antidiabetic, ophthalmological and dermatological activities. (I) can be used for inhibiting expression of VEGF, and so can be used for inhibiting growth of tumours and diminishing tumours size. The tumour can be matestatic, non-metastatic, vascularised, non-vascularised, hard or soft. (I) is also useful for treating injuries including wounds, surgical incisions, chronic wounds, heart diseases and stroke. (I) is also useful for treating disorders characterised by excessive angiogenesis e.g. macular degeneration and diabetic retinopathy. The present sequence represents a human MMP peptide, which is used in the exemplification of
                                                                                                                                                                                                                                                                                                                                                                                       matrix metalloproteinase inhibitor; antitumour; antiangiogenic; cardiant; vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic; vulnerary; cerebroprotective; antidiabetic; ophthalmological; tumour; dermatological; metastatic; non-metastatic; vascularised; heart disease; non-vascularised; surgical incision; chronic wound; stroke; angiogenesis; macular degeneration; diabetic retinopathy; cleavage region.
(Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-correct PA field.) (Updated on 25-MAR-2003 to correct PI field.)
                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Anti-anglogenic composition comprising peptide inhibitor of matrix metalloproteinase, useful for decreasing the expression of vascular endothelial growth factor and treating cancers and tissue injuries.
                                                                                                                                                                                                                                                                                                                                                                           Human; matrix metalloproteinase; MMP; anticancer; wound healing;
                                                                                                            .
0
                                                                            100.0%; Score 60; DB 2; Length 23; 100.0%; Pred. No. 0.0023;
                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                           Human matrix metalloproteinase 2 peptide SEQ ID NO:15.
                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Page 26; 103pp; English.
                                                                                                                                                                                                                                               ABP97137 standard; peptide; 43 AA.
                                                                                                          ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-AUG-2002; 2002WO-US026319.
                                                                                                                                                                                                                                                                                                              (first entry)
                                                                     Query Match
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                         1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-381408/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Quirk S, Weart IF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO2003018748-A2.
                                             Sequence 23 AA;
                                                                                                                                                                                                                                                                                                              24-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-MAR-2003.
                                                                                                                                                                                                                                                                               ABP97137;
                2003 to
                                                                                                                                                                                                                RESULT 11
ABP97137
SKSS
                                                                                                                                                                                                                                                8
```

(KIMB ) KIMBERLY-CLARK WORLDWIDE INC.

16-AUG-2001; 2001US-0312726P. 21-DEC-2001; 2001US-00032376. 21-MAY-2002; 2002US-00153185.

15-AUG-2002; 2002WO-US026198

WO2003016520-A1.

27-FEB-2003

Homo sapiens.

Villanueva JM;

Malik S,

Quirk S,

WPI; 2003-289980/28.

```
ö
                                                                                                                                                                                               The present invention relates to peptide inhibitors of metalloproteinases (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have peptide sequences related to the cleavage regions of the proenzyme forms of the MMPs. The peptide inhibitors are useful for stimulating cellular proliferation of fibroblasts or keratinocytes, promoting healthy skin development, treating wounds, preventing scarring, improving skin tone, reducing wrinkling and for simulating the development of smooth, healthy skin. The peptide inhibitors are useful as anti-aging and wound healing compounds. The present sequence represents a partial sequence of human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
Novel peptide inhibitor of proteinase activity of matrix metalloproteinases, e.g. matrix metalloproteinase-2, useful for stimulating cellular proliferation of fibroblasts or keratinocytes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 60; DB 6; Length 43; 100.0%; Pred. No. 0.0043; .ive 0; Mismatches 0; Indels
                                                                                                                                         Claim 1; Page 27; 120pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 43 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
```

RESULT 13 ADQ17098

present invention

Sequence 43 AA

us-10-601-059-13.rag

```
This invention relates to a novel composition for inhibiting growth of chondrosarcoma cells comprising an amount of a peptide and a plarmaceutical carrier. The invention may be useful for the production of compounds with a cytostatic activity acting as metalloprotease 1 inhibitors, metalloprotease 3 inhibitors, metalloprotease 5 inhibitors, metalloprotease 9 inhibitors, metalloprotease 10 inhibitors, metalloprotease 11 inhibitors, metalloprotease 12 inhibitors, metalloprotease 13 inhibitors, composition is useful for decreasing and inhibiting the growth of chondrosarcoma cells which in turn inhibits 10 inhibiting the growth of chondrosarcoma cells which in turn inhibits 10 growth of a bone tumor or diminishes a size of a bone tumor, useful for treating chondrosarcomas and bone cancers. The present sequence is that 10 insequence is composition of the invention.
                                                                                                                                                                                                                                                                                                         A composition for decreasing and inhibiting the growth of chondrosarcoma cells, useful for treating chondrosarcomas and bone cancer, comprises a matrix metalloproteinase inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                 Disclosure, SEQ ID NO 15, 50pp, English.
                                                                                                                    20-JUN-2003; 2003US-00601059
                                                                                                                                                      20-JUN-2003; 2003US-00601059
                                                                                                                                                                                                                                                                           WPI; 2005-047374/05
                                                                                                                                                                                                                                           Quirk S;
                                                    US2004259802-A1.
                                                                                                                                                                                      (YANG/) YANG S. (QUIR/) QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 43 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO2003018748-A2
                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                      23-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABP97124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                            Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention provides peptides and compositions containing such peptides that are useful as agents to maintain healthy skin and to promote the condition of the skin. The invention is useful for increasing the amount of fibronectin in tissue. The invention is also useful for encouraging the maintenance and development of healthy skin, preventing and treating wrinkles and for treating wounds. The invention acts as vulnerary and dermatological agents. The present sequence is human matrix metalloproteinase (MMP) wound site peptide. This sequence is used in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Composition used for preventing and treating wrinkles and treating wounds comprises peptide having sequence related to matrix metalloproteinase
                                                                                                                                    Fibronectin, healthy skin; wrinkle; wound; vulnerary; dermatological; human; matrix metalloproteinase; MMP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  growth; pharmaceutical; cytostatic; metalloprotease 1 inhibitor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  metalloprotease 2 inhibitor; metalloprotease 3 inhibitor; metalloprotease 4 inhibitor; metalloprotease 5 inhibitor; metalloprotease 6 inhibitor; metalloprotease 7 inhibitor; metalloprotease 8 inhibitor; metalloprotease 9 inhibitor; metalloprotease 10 inhibitor; metalloprotease 11 inhibitor; metalloprotease 12 inhibitor; metalloprotease 11 inhibitor; metalloprotease inhibitor; metalloprotease inhibitor; metalloprotease 12 inhibitor; metalloprotease 13 inhibitor;
                                                                                                Human matrix metalloproteinase-2 (MMP2) wound site peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 60; DB 8; Length 43; 100.0%; Pred. No. 0.0043; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human matrix metalloproteinase-2 polypeptide SegID15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; SEQ ID NO 15; 60pp; English.
ADQ17098 standard, peptide, 43 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADV68479 standard; protein; 43 AA
                                                                                                                                                                                                                                                                                           30-DEC-2002; 2002US-00335207.
                                                                                                                                                                                                                                                                                                                             30-DEC-2002; 2002US-00335207.
                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2004-506456/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                 Malik S, Quirk S;
                                                                                                                                                                                                                                                                                                                                                             (MALI/) MALIK S. (QUIR/) QUIRK S.
                                                                                                                                                                                                                         US2004127421-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 43 AA;
                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-MAR-2005
                                                                  23-SEP-2004
                                                                                                                                                                                                                                                         01-JUL-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         proenzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADV68479;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       33
                                  ADQ17098;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADV68479
$$$$$$$$$$$$$$$
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; matrix metalloproteinase; MMP; anticancer; wound healing; matrix metalloproteinase inhibitor; antitumour; antiangiogenic; cardiant; vascular endothelial growth factor inhibitor; VGGF inhibitor; Cytostatic; vulnerary; cerebroprotective; antidiabetic; ophthalmological; tumour; deractological; metastatic; non-metastatic; vascularised; heart disease; non-vascularised; surgical incision; chronic wound; stroke; angiogenesis; macular degeneration; diabetic retinopathy; cleavage region.
                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human matrix metalloproteinase 2 cleavage region peptide SEQ ID NO:2.
                                                                       ö
100.0%; Score 60; DB 9; Length 43; 100.0%; Pred. No. 0.0043;
                                                                   0; Indels
                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                  ABP97124 standard; peptide; 44 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24-JUN-2003 (first entry)
                                 Best Local Similarity 100
Matches 10; Conservative
                                                                                                                                              1 NYNFFPRKPK 10
                                                                                                                                                                                                                  33 NYNFFPRKPK 42
```

```
The present invention relates to peptide inhibitors of metalloproteinases (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have peptide sequences related to the cleavage regions of the proenzyme forms of the MMPS. The peptide inhibitors are useful for stimulating cellular proliferation of fibroblasts or keratinocytes, promoting healthy skin development, treating wounds, preventing scarring, improving skin tone, reducing wrinkling and for simulating the development of smooth, healthy skin. The peptide inhibitors are useful as anti-aging and wound healing compounds. ABG763121 represent peptide inhibitors of MMPs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Composition used for preventing and treating wrinkles and treating wounds comprises peptide having sequence related to matrix metalloproteinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention provides peptides and compositions containing such peptides that are useful as agents to maintain healthy skin and to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fibronectin; healthy skin; wrinkle; wound; vulnerary; dermatological; human; matrix metalloproteinase; MMP.
                                                                                                                                 Novel peptide inhibitor of proteinase activity of matrix metalloproteinases, e.g. matrix metalloproteinase-2, useful for stimulating cellular proliferation of fibroblasts or keratinocytes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human matrix metalloproteinase-2 (MMP2) cleavage region peptide #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Match
Local Similarity 100.0%; Score 60; DB 6; Length 44
Local Similarity 100.0%; Pred. No. 0.0044;
es 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 1; SEQ ID NO 2; 60pp; English.
                                 (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADQ17085 standard; peptide; 44 AA.
                                                                  Villanueva JM
                                                                                                                                                                                                     Claim 1; Page 16; 120pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-DEC-2002; 2002US-00335207.
21-MAY-2002; 2002US-00153185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-DEC-2002; 2002US-00335207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        33 NYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2004-506456/48.
                                                                                                 WPI; 2003-289980/28
                                                                Malik S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MALIK S.
QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2004127421-A1
                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 44 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23-SEP-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      proenzyme
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADQ17085;
                                                                  Quirk S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Malik S,
                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (MALI/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QUIR/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 17
   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                The present invention describes an anti-angiogenic composition (I) for inhibiting expression of vascular endothelial growth factor (VBGF). (I) comprises an effective amount of a peptide inhibitor of matrix metalloproteinase (WMP), where the peptide can inhibit the expression of VBGF. (I) has cytostatic, vulnerary, cardiant, cerebroprotective, antidabetic, ophthalmological and dermatological activities. (I) can be used for inhibiting expression of VBGF, and so can be used for inhibiting cyrostatic, vascularised, non-vascularised, hard or soft. (I) is also useful for treating injuries including wounds, surgical incisions, chronic wounds, heart diseases and stroke. (I) is also useful for treating disperie retinopathy. The present sequence represents a human MMP cleavage rection peptide, which is used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2; cleavage region; proenzyme form; cellular proliferation; fibroblast; keratinocyte; healthy skin development; wound healing; scarring; skin tone; wrinkle; anti-aging; vulnerary.
                                                                                                                                                                                                                                                    Anti-angiogenic composition comprising peptide inhibitor of matrix metalloproteinase, useful for decreasing the expression of vascular endothelial growth factor and treating cancers and tissue injuries.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 60; DB 6; Length 44; 100.0%; Pred. No. 0.0044; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human matrix metalloproteinase (MMP) peptide inhibitor #2.
                                                                                                                                                  (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                                                                                        Claim 17; Page 15; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABG76310 standard; protein; 44 AA.
                                                                                16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                15-AUG-2002; 2002WO-US026319.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-AUG-2002; 2002WO-US026198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 NYNFPPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NYNFFPRKPK 42
                                                                                                                                                                                                                      WPI; 2003-381408/36.
                                                                                                                                                                                     Quirk S, Weart IF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO2003016520-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 44 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-MAY-2003
                 06-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABG76310;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
ઠે
```

Gaps

; 0

Length 44;

σ

```
ö
                               the amount of fibronectin in tissue. The invention is also useful for encouraging the maintenance and development of healthy skin, preventing and treating wrinkles and for treating wounds. The invention acts as vulnerary and dermatological agents. The present sequence is human matrix metalloprotesinase (MMP) cleavage region peptide. This sequence is used in the exemplification of the invention.
the condition of the skin. The invention is useful for increasing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This invention relates to a novel composition for inhibiting growth of chodrosarcoma cells comprising an amount of a peptide and a pharmacutuical carrier. The invention may be useful for the production of compounds with a cytostatic activity acting as metalloprotease 1 inhibitors, metalloprotease 2 inhibitors, metalloprotease 4 inhibitors, metalloprotease 5 inhibitors, metalloprotease 6 inhibitors, metalloprotease 6 inhibitors, metalloprotease 9 inhibitors, metalloprotease 10 inhibitors, metalloprotease 9 inhibitors, metalloprotease 11 inhibitors, metalloprotease 12 inhibitors, metalloprotease 11 inhibitors, metalloprotease 12 inhibitors, metalloprotease 11 inhibitors, metalloprotease 12 inhibitors, metalloprotease 13 inhibitors, metalloprotease 12 inhibitors, metalloprotease 13 inhibitors, metalloprotease inhibitors, metalloprotease 13 inhibitors, metalloprotease inhibitors, metalloprotease 13 inhibitors, metalloprotease inhibitors, metalloprotease inhibitors, metalloprotease and metalloprotease inhibitors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A composition for decreasing and inhibiting the growth of chondrosarcoma cells, useful for treating chondrosarcomas and bone cancer, comprises a matrix metalloproteinase inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     growth; pharmaceutical; cytostatic; metalloprotease 1 inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human matrix metalloproteinase-2 cleavage region polypeptide SeqID2.
                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           metalloprotease 2 inhibitor; metalloprotease 3 inhibitor; metalloprotease 4 inhibitor; metalloprotease 5 inhibitor; metalloprotease 5 inhibitor; metalloprotease 7 inhibitor; metalloprotease 7 inhibitor; metalloprotease 10 inhibitor; metalloprotease 10 inhibitor; metalloprotease 11 inhibitor; metalloprotease 12 inhibitor; metalloprotease 13 inhibitor; metalloprotease inh
                                                                                                                                                                                                                                                                                                                                 100.0%; Score 60; DB 8; Length 44; 100.0%; Pred. No. 0.0044; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 16; SEQ ID NO 2; 50pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADV68466 standard; protein; 44 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-JUN-2003; 2003US-00601059.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-JUN-2003; 2003US-00601059.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                            10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 NYNPEPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NYNFPPRKPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2005-047374/05.
                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US2004259802-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (YANG/) YANG S.
                                                                                                                                                                                                                                                                            Sequence 44 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-MAR-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-DEC-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADV68466;
   promote
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (QUIR/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADV68466
8888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human genome-derived single exon nucleic acid probes useful for analyzing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention relates to single exon nucleic acid probes (SENP: see AA131315-AA157546). The present sequence is a peptide encoded by one such probe. The probes are useful for producing a microarray for predicting, measuring and displaying gene expression in samples derived from human placenta. The probes are useful for antenatal diagnosis of
th of a bone tumor or diminishes a size of a bone tumor, useful for ting chordrosarcomas and bone cancers. The present sequence is that peptide derived from a human matrix metalloproteinase which may be during the development of a composition of the invention.
                                                                                                                                                                                                                                                                                                               Peptide #4866 encoded by probe for measuring placental gene expression.
                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                        9; Length 44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 60; DB 4; Length 75; 100.0%; Pred. No. 0.0075; ive 0; Mismatches 0; Indels
                                                                                      100.0%; Score 60; DB 9; Length 44
100.0%; Pred. No. 0.0044;
iive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                          microarray; human; placenta; antenatal diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 27; SEQ ID NO 31098; 654pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  띯
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rank
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene expression in human placenta.
                                                                                                                                                                                                                                   AAM30829 standard; protein; 75 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (MOLE-) MOLECULAR DYNAMICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chen W,
                                                                                                   ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-00632366.
2000US-0234687P.
2000US-0236359P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-JAN-2001; 2001WO-US000663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0180312P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0207456P
2000US-00608408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000GB-00024263
                                                                                                                                                                                                                                                                                      (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  human genetic disorders
                                                                                                                                                         1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hanzel DK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-488897/53
                                                                                      Query Match
Best Local Similarity
Matches 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                       genetic disorder
                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                        WO200157272-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 75 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      03-AUG-2000;
21-SEP-2000;
27-SEP-2000;
04-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-FEB-2000;
                                                                                                                                                                                                                                                                                     17-OCT-2001
                                                                Sequence 44
                                                                                                                                                                                                                                                                                                                                                                                                                                 09-AUG-2001
              treating
                                                                                                                                                                                                                                                             AAM3 0829;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Penn SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
 growth
                                                                                                                                                                                                                                                                                                                                          Probe;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best_Loca
Matches
                                       nsed
                                                                                                                                                                                                                                      셤
                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

us-10-601-059-13.rag

```
measuring human gene expression in a sample derived from human heart (see ABA21535-ABA41305). The present sequence is a protein encoded by one such probe. The probes may be used for predicting, measuring and displaying gene expression in samples derived from the human heart via microarrays. By measuring gene expression, the probes are useful for predicting, diagnosing, grading, staging, monitoring and prognosing diseases of the human heart and vascular system e.g. cardiovascular disease. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO
                                                                                                                                                                                                       Protein #4665 encoded by probe for measuring heart cell gene expression.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Single exon nucleic acid probes for analyzing gene expression in human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention relates to single exon nucleic acid probes for
                                                                                                                                                                                                                                                                       Human; gene expression; heart; microarray; vascular system;
cardiovascular disease; hypertension; cardiac arrhythmia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 60; DB 4; Length 75; 100.0%; Pred. No. 0.0075; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 15; SEQ ID NO 24436; 530pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chen W, Rank DR;
ABB22666 standard; protein; 75 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-MAY-2000; 2000US-0207456P.
30-JUN-2000; 2000US-0060B40B.
03-AUG-2000; 2000US-00632366.
21-SEP-2000; 2000US-02346BP.
27-SEP-2000; 2000US-023659P.
04-OCT-2000; 2000GB-00024263.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (MOLE-) MOLECULAR DYNAMICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-JAN-2001; 2001WO-US000666
                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100...
                                                                                                                                                                                                                                                                                                                                        congenital heart disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Penn SG, Hanzel DK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-488899/53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 75 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200157274-A2
                                                                                                                                       23-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-AUG-2001
                                                                ABB22666;
```

The invention relates to a spatially-addressable set of single exon nucleic acid probes for measuring gene expression in a sample derived from human lung comprising single exon nucleic acid probes having one of 12614 nucleic acid sequences mentioned in the specification, or their complements or the 12387 open reading frames derived from the 12614 complements or the 12387 open reading frames derived from the 12614 complements or the 12387 open reading frames derived from the 12614 complements or the 12387 open reading frames derived from the 12614 complements or the burnan lung; comprising (a) contacting the array with a sample collection of detectably labeled nucleic acids derived from human lung comprising (a) contacting the array with a collection of detectably labeled nucleic acids from electrons of algorithmically predicting at least one exon from genomic sequences of the eukaryote; and (b) detecting specific hybridisation of detectably algorithmically predicting at least one exon from genomic sequences of the autoritical acids from elekaryote lung mRNA, to a single gene, comprising (a) identifying exons from genomic sequence is included in the above mentioned microarray; assigning exons to a single exon comprising the expression of each of the exons in several comprising the expression of each of the exons in several comprising the expression of each of the exons in the specification, or encoded by the comprising one of 12011 sequences, mentioned in the specification, or encoded by the compression of each of each of the expression in the specification, or encoded by the content of the expression in the specification, or encoded by the expression of each of Human peptide encoded by genome-derived single exon probe SEQ ID 29811. chronic obstructive pulmonary disease; interstitial lung disease; familial idlopathic pulmonary fibrosis; neurofibromatosis; tuberous sclerosis; gaucher's disease; Niemann-Pick disease; Hermansky-Pudlak syndrome; sarcoidosis; pulmonary haemosiderosis; pulmonary histiocytosis; lymphangioleiomyomtosis; Karagener syndrome; pulmonary alveolar proteinosis; fibrocystic pulmonary dysplasia; pulmonary dysplasia; pulmonary dysplasia; pulmonary primary ciliary dyskinesis; pulmonary hypertension; hypline membrane disease. Spatially-addressable set of single exon nucleic acid probes, used to single exon probe; asthma; lung cancer; COPD; ILD; measure gene expression in human lung samples. Claim 27; SEQ ID NO 29811; 634pp; English Chen W, Rank DR; (MOLE-) MOLECULAR DYNAMICS INC 03-AUG-2000; 2000US-00632366. 21-SEP-2000; 2000US-0234687P. 27-SEP-2000; 2000US-0236359P. 30-JAN-2001; 2001WO-US000665 30-JUN-2000; 2000US-00608408 04-OCT-2000; 2000GB-00024263 Hanzel DK, WPI; 2002-114183/15. WO200186003-A2. Homo sapiens. 04-FEB-2000; 26-MAY-2000; 15-NOV-2001. Penn SG, 

cancer, chronic obstructive pulmonary disease (COPD), interstitial lung disease (ILD), familial idiopathic pulmonary fibrosis, neurofibromatosis, tuberous sclerosis, Gaucher's disease, Niemann-Pick disease, Hermansky-Pudlak syndrome, sarcoidosis, pulmonary haemosiderosis, pulmonary histocytosis, lymphangioleiomyomtosis, pulmonary alveolar proteinosis, Karagener syndrome, fibrocystic pulmonary dysplasia, primary ciliary

ö

Gaps

ö

ABG40146 standard; peptide; 75 AA.

RESULT 21 ABG40146

ઠે

(first entry)

19-AUG-2002

ABG40146;

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention describes a new isolated polymucleotide (I) encoding a polypeptide with biological activity comprising: a nucleotide sequence of SEQ ID NOS: 1-567 (fully defined), a nucleotide sequence that hybridizes to the sequence of (i) under stringent hybridization conditions; or a nucleotide sequence having greater than 99% sequence identity with the sequence of (i). Also described are: a(n) (expression)vector comprising (I); a host cell genetically engineered to comprise (I) operatively, associated with a regulatory sequence that modulates expression of the polynucleotide in the host cell; an isolated polypeptide comprising a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        peripheral neuropathy; Alzheimers disease; neuroprotective; nootropic; degeneration; parkinsons disease; autiparkinsonian; neurological disease; cerbrovascular ischemia, cerebroprotective; vasotropic; cardiovascular disease; autoimmune disease; immunosuppressive; immune disorder; viral infection; virucide; infection; cancer;
dyskinesis, pulmonary hypertension and hyaline membrane disease. The present sequence is a peptide/protein encoded by a single exon probe of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                vulnerary; CNS-gen.; gene therapy; diagnostic; forensic; mapping; DNA purification; procein purification; osteoarthritis; antiarthritic; osteopathic; musculoskeletal disease; osteoporosis; endocrine disease; periodontal disease; antiinflammatory; mouth disease; burns; injury;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New polynucleotide encoding a polypeptide with biological activity, useful for treating a disease or disorder, e.g. osteoarthritis, burns, CNS and peripheral disease, stroke, autoimmune disorders, viral
                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zhou P, Ma Y;
Goodrich R, Chen R;
                                                                                                                                                                                            ö
                                                                                                                                                     100.0%; Score 60; DB 5; Length 75; 100.0%; Pred. No. 0.0075;
                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TY, Wang J, Wang ZW, Zhang J, Ren F, 1 M, Xue A, Asundi V, Zhao Q, Wang D,
                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 20; SEQ ID NO 768; 500pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel human polypeptide SEQ ID NO 768.
                                                                                                                                                                                                                                                                                                                                                             AEA20074 standard; protein; 194 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Boyle B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-MAR-2004; 2004WO-US007412.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-MAR-2003; 2003US-00389559
                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                      Local Similarity 100.
ses 10; Conservative
                                                                                                                                                                                                                             1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  infection, or cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cytostatic; neoplasm
                                                                                                                                                                                                                                                           58 NYNFFPRKPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Weng G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2005-417730/42.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (NUVE-) NUVELO INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; AEA19507.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO2005049806-A2
                                                                                                                 Sequence 75 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                       11-AUG-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-JUN-2005.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wehrman T,
                                                                                                                                                                                                                                                                                                                                                                                                  AEA20074;
                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ghosh M
                                                                                                                                                                          Best Loc
Matches
                                                                                                                                                                                                                                                                                                                     RESULT 22
AEA20074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           rang
 88888888
                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                               ð
```

```
sequence of SEQ ID NOS: 568-1134 (fully defined), where the polypeptide cost is: a polypeptide encoded by (I); or a polypeptide encoded by a composition comprising the polypeptide of (3) and a carrier; an antibody directed against the polypeptide of (3) and a carrier; an antibody directed against the polypeptide of (3); a method cor identifying a compound that binds to the collection of polypeptide of (3); a method for identifying a compound that binds to the polypeptide of (3); a method for identifying a compound that binds to the collection of polypeptide of (3); and a collection of polypeptide with biological collection of polypeptide with biological activity, which comprises any of the amino acid sequence of SEQ ID NOS: 1-567. (I) is a polypeptide with biological activity, which comprises any of the amino acid sequence of SEQ ID NOS: 1-567. (I) is a polypeptide with biological activity, which comprises are fully defined in the specification. The sequences and methods are useful in diagnostics, forensic, and general mapping, in identifying of mutations responsible for genetic disorders or other traits, in assessing biodiversity, and for producting many other cypes of data and products dependent on DNA and amino acid sequences. The composition and method are useful for treating a disease or disorder, composition and method are useful for treating a disease or disorder, composition and method are useful for treating a disease or disorder, composition and disease, Alzheimer's disease, burns, CNS and composition and sequence of a novel polypeptide of the invention. This is the amino acid sequence of a novel polypeptide of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                oiological activity; genetic engineering; hybridisation probe; oligomer; primer; chromosome mapping; gene mapping; recombinant protein production;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New polynucleotides, useful as hybridization probes, oligomers or primers, for chromosome or gene mapping, for the recombinant production of proteins, and for generating antisense DNA or RNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence represents a polypeptide (II) with biological activity, which is encoded by an isolated polynucleotide sequence (I)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 60; DB 9; Length 194; 100.0%; Pred. No. 0.02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human polypeptide sequence SEQ ID NO:1954.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ma Y;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 20; SEQ ID NO 1954; 571pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ϋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADF59546 standard; protein; 445 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Weng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09-AUG-2002; 2002WO-US025485.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-AUG-2001; 2001US-0311261P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                biological activity;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2003-876918/81.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
nes 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tang YT, Yang Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB; ADF58546.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 194 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO2003080795-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-OCT-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADF59546;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 uman.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADF59546
              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
```

cancer in a patient. Claimed is a vaccine comprising the polypeptide or the nucleic acid encoding the polypeptide. Determining the presence of a lung specific nucleic acid in a sample comprises contacting the sample with a nucleic acid molecule above which will hybridize to a lung specific nucleic acid. A composition consisting of the nucleic acid molecule above which will hybridize to a lung specific nucleic acid. A composition consisting of the nucleic acid molecule or the polypeptide is useful for treating a patient with lung cancer, where the administration induces an immune response against the lung cancer cell expressing the nucleic acid molecule or polypeptide. The nucleic acid molecule and polypeptide are also useful for identifying, tadagnoshing, monitoring, staging, imaging and treating non-cancerous disease states in lung, identifying lung tissue, monitoring and identifying and/or designing (ant) agonists of the polypeptide, and for gene therapy. The present sequence is a human lung specifc protein.

us-10-601-059-13.rag

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention relates to human nucleic acid molecules that are specific to lung cells, lung tissue and/or the lung organ. These lung appecific nucleic acids may be naturally occurring cDNA, genomic DNA, RNA or a fragment, or a non-naturally occurring nucleic acid. Due to alternative splicing and transcriptional modification one lung-specific appen may encode for multiple lung specific RNA s. Specifically claimed is new isolated nucleic acid molecule encoding a protein sequence selected from 83 (SEQ ID NO: 5-5) sequences, and a nucleic acid selected from 5cs (SEQ ID NO: 1-55) sequences. Described is a method of determining the presence of a lung specific nucleic acid or protein in a sample; and a method of diagnosing or monitoring the presence and metastases of lung
from the present invention . Also described: (1) a vector comprising (1); (2) an expression vector comprising (1); (3) a host cell genetically engineered to comprise (1) which is operatively associated with a regulatory sequence that modulates expression of (1) in the host cell; (4) a polypeptide (II) encoded by (1); (5) a composition comprising the polypeptide of (4) and a carrier; (6) an antibody directed against the polypeptide of (4); (7) detecting (1) or the polypeptide of (4) in a sample; (8) identifying a compound that binds to the polypeptide of (4); (9) producing the polypeptide of (4); and a least one of the polymorlecting of the polymorlecting of the polymorlectides sequences (1). The polymorlectides (1) can be used as hybridisation probes.
                                                                                                                                                                                                                                      oligomers or primers, for chromosome or gene mapping, for the recombinant production of proteins, and for generating antisense DNA or RNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New nucleic acid molecule from Homo sapiens, useful for identifying, diagnosing, monitoring, staging, imaging and treating a patient with lung
                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA hybridization; diagnosis; diagnostic; lung tumor; vaccine; cytostatic; gene therapy; drug screening.
                                                                                                                                                                                                                                                                                                                                         100.0%; Score 60; DB 7; Length 445; 100.0%; Pred. No. 0.046; cive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human lung specifc protein, DEX0486_001.aa.1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 12; SEQ ID NO 56; 247pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AEA90447 standard; protein; 462 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cancer and non-cancerous diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-MAY-2004; 2004US-00852707.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22-MAY-2003; 2003US-0473941P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                             1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Macina RA, Turner LR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2005-457785/46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (MACI/) MACINA R A. (TURN/) TURNER L R.
                                                                                                                                                                                                                                                                                                    Sequence 445 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2005142572-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (SUNY/) SUN Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-SEP-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-JUN-2005.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AEA90447;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
a
      ઠ
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to isolated polynucleotide (I) and polypeptide (II) sequences. (I) is useful as hybridisation probes, polymerase chain reaction (PRR) primers, oligomers, and for chromosome and gene mapping, and in recombinant production of (II). The polynucleotides are also used in diagnostics as expressed sequence tags for identifying expressed genes. (I) is useful in gene therapy techniques to restore normal activity of (II) or to treat disease states involving (II). (II) is useful for generating antibodies against it, detecting or quantitating a polypeptide in tissue, as molecular weight markers and as a food supplement. (II) and its binding partners are useful in medical imaging
                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New isolated polymucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess biodiversity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; chromosome mapping; gene mapping; gene therapy; forensic; food supplement; medical imaging; diagnostic; genetic disorder.
                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                               100.0%; Score 60; DB 9; Length 462; 100.0%; Pred. No. 0.048; Dred. O; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 20; SEQ ID NO 54360; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel human diagnostic protein #23992.
                                                                                                                                                                                                                                                                                                                                                                                                                      ABG24001 standard; protein; 468 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-MAR-2001; 2001WO-US008631.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tang YT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31-MAR-2000; 2000US-00540217.
23-AUG-2000; 2000US-00649167.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-FEB-2002 (first entry)
                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                         109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                            1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-639362/73.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Drmanac RT, Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-PSDB; AAS88188
                                                                                                                                                                                                                    Sequence 462 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200175067-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11-OCT-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABG24001;
                                                                                                                                                                                                                                                                                                                                                                                         RESULT 25
                                                                                                                                                                                                                                                                                                                                                                                                        ABG24001
                                                                                                                                                                                                                                                                                                                                                                                                                                                     8X333333333333X8
                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                           쉄
```

```
ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to novel diagnostic and therapeutic polynucleotides selected from one of the 2722 sequences defined in the specification. A polynucleotide of the invention may have a use in gene therapy. The human diagnostic and therapeutic polynucleotides (dithp) or polypeptides may be used to diagnose a particular condition, disease or disorder associated with human molecules, e.g. cell proliferative disorders,
of sites expressing (II). (I) and (II) are useful for treating disorders involving aberrant protein expression or biological activity. The polypeptide and polynucleotide sequences have applications in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits to assess biodiversity and to produce other types of data and products dependent on DNA and amino acid sequences. ABG00010-ABG30377 represent novel human diagnostic patent did not appear in the printed specification, but was obtained in ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gietzen D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New diagnostic and therapeutic polynucleotides and polypeptides, useful in diagnosing a condition, disease or disorder associated with human molecules, e.g. autoimmune or inflammatory disorders, in gene therapy or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene therapy; human diagnostic and therapeutic polynucleotide; dithp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Schmidt JP, Wright RJ, Bruns CM, Marjanovic MM, Shen F;
Harthshorne TA, Suchorolski MT, Altus CM, Pitts SJ, Elder LV;
Mooney EM, Delegeane AM, Pansear IS, Banville SC, Reddy TP;
Stevens KA, Blanchard JL, Panzer SR, Wang X, Au AP, Gerstin EH;
Peralta CH, Anderson SB, Rioux P, Shen EJ, Wu MC, Stuve LL;
Lagace RB, Spiro PA, Stewart EA, Wingrove J, Vitt UA, Kirton ES;
Ku Y, Kwong M, Policky JL, Hurwitz BL, Ma Y, Jackson JL, Gietze
Patury S, Shi X, Suarez CJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 60; DB 4; Length 468;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score bo, Pred. No. 0.048;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human diagnostic and therapeutic pprotein SEQ ID NO:4306.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABM84057 standard; protein; 623 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 27; Page; 190pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-SEP-2002; 2002US-0410259P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .2-SEP-2003; 2003WO-US028227,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (INCY-) INCYTE CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2004-329368/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 468 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-PSDB; ACN42709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO2004023973-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            in gene mapping
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo варіепв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-MAR-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABM84057;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
          8X3333333333X8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HANDER STANDER STANDER
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
autoimmune/inflammatory disorder, developmental disorder, endocrine disorder, neurological disorders, gastrointestinal disorders, or infections caused by virus, bacteria, fungi or parasite. The dithip molecules may also be used in genetic mapping, in identifying individuals from minute blological samples, in detecting single nucleotide polymorphisms, as molecular weight markers, and for somatic or germline gene therapy. The present sequence represents a dithip protein of the invention. Note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO at www.wipo.int/pct/en/sequences/listing.htm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The original source of the protein material was H-ras transformed human bronchial epithelial cells (TBB-1). The AA sequence was then used to develop oligonucleotide probes which were used to screen a cDNA library of human skin fibroblast mRNA. The longest clone, pGBL 186.2, represented almost the full gelatinase mRNA sequence except the leader sequence exceding the first few AA's of the signal peptide. (Updated on 25-MAR-2003 to correct PF field.) (Updated on 25-MAR-2003 to correct PR field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA encoding human type IV collagenase (gelatinase) - for use in the treatment of hypertrophic scars, keloids and intervertebral disc disease.
                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             human type IV collagenase (gelatinase) in pGEL 186.2.
                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hypertrophic scar; keloid; intervertebral disc disease; enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                              100.0%; Score 60; DB 8; Length 623; 100.0%; Pred. No. 0.064;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 60; DB 1; Length 631;
100.0%; Pred. No. 0.065;
tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                      AAP96143 standard; protein; 631 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure, Fig 3, 36pp, English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   88GB-00820803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     87US-00093421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (revised)
(first entry)
                                                                                                                                                                                                                   Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10; Conservative
                                                                                                                                                                                                                                                                                                                       1||||||||
109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eisen AZ, Goldberg GI;
                                                                                                                                                                                                                                                                                                  1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1989-147011/20.
N-PSDB; AAN91700.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
                                                                                                                                                                                              Sequence 623 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 631 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-SEP-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-SEP-1987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-MAR-2003
09-MAY-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GB2209526-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-MAY-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAP96143;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                        RESULT 27
                                                                                                                                                                                                                                                                                                                                                                                                          AAP96143
     8888888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                          ሯ
                                                                                                                                                                                                                                                                                                                                셤
```

움

```
Type IV collagenase; peptide fragments; metalloproteinase detection; antibodies; metalloptroteinase inhibition; angiogenesis; arthritis; tumour growth; metastasis; granulomatous inflammatory conditions; sarchodosis.
                                                                                                                                                                                                                                     Location/Qualifiers
                AAR07969 standard; protein; 631 AA.
                                                                                                                    Complete type IV collagenase
                                                                                                                                                                                                                                                                                                                                                                                 67. .89

/label= 7

67. label= 6

/label= 6

/label= 8

75. .94

/label= 9

141. 150

/label= 10

/label= 11

308. .307

/label= 12

311. .386

/label= 13

/label= 13

/label= 13

/label= 13

/label= 13

/label= 14

/label= 14

/label= 15

/label= 16

/label= 17

/label= 18

/label= 18

/label= 18

/label= 18
                                                                  (revised)
(revised)
(first entry)
                                                                                                                                                                                                                                                    1. .18
/label= 1
                                                                                                                                                                                                                                                                          19. .33
/label= 2
                                                                                                                                                                                                                                                                                                   26. .42
/label= 3
                                                                                                                                                                                                                                                                                                                             34. .50
/label= 4
51. .66
/label= 5
                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JSN7317407-N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAR-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAR-1989;
                                                                 25-MAR-2003
17-DEC-2001
                                                                                          16-JAN-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-AUG-1990
                                        AAR07969;
                                                                                                                                                                                                                                                                                                                                                                               Peptide
                                                                                                                                                                                                                                                 Peptide
                                                                                                                                                                                                                                                                          Peptide
                                                                                                                                                                                                                                                                                                      Peptide
                                                                                                                                                                                                                                                                                                                                Protein
                                                                                                                                                                                                                                                                                                                                                       Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                    Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Peptide
                                                                                                                                                                                                                                                                                                                                                                                                           Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Peptide
    AAR07969
                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA encoding human type IV collagenase (gelatinase) - for use in the treatment of hypertrophic scars, keloids and intervertebral disc disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human type IV collagenase (gelatinase). Protein source was H-ras determined human bronchial epithelial cells (TBE-1). The sequence was determined from clone pdel 186.2 which represents almost the full mRNA sequence. Feature 1 is the N-terminal domain, 1; feature 2 is a middle domain, II, which is organised into 3 x 58 amino acid long head to tail repeats (features 4,5, and 6). These show homology to the type II motif collagen binding domain of fibronectin. Feature 3 is the C-terminal domain. The enzyme could be used in the treatment of hypertrophic scars, Keloids, and intervertebral disc disease. See also AAN91700. (Updated on 25-MAR-2003 to correct PF field.) (Updated on 25-MAR-2003 to correct PA field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                              Human type IV collagenase; gelatinase; hypertrophic scars; keloids; intervertebral disc disease; extracellular matrix metalloprotease; bronchial epithelial cells; TBE-1 cells; pgel186.2; type II motif; fibonectin; collager-binding domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 60; DB 1; Length 631; 100.0%; Pred. No. 0.065; ive 0; Mismatches 0; Indels
                                                                                                                                                                       Human type IV collagenase (gelatinase).
                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                              AAP91139 standard; protein; 631 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 2; Fig 6; 36pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                   88GB-00820803.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            87US-00093421.
                                                                                                                                (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (UNIW ) UNIV WASHINGTON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Goldberg GI;
              8
WPI; 1989-147011/20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 631 AA;
                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-SEP-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-SEP-1987;
                                                                                                                                25-MAR-2003
18-DEC-1989
                                                                                                                                                                                                                                                                                                                                                                                              GB2209526-A.
                                                                                                                                                                                                                                                                                                                                Duplication
                                                                                                                                                                                                                                                                                                                                              Duplication
Duplication
                                                                                                                                                                                                                                                                                                                                                                                                                          17-MAY-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eisen AZ,
                                                                                                       AAP91139;
              80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                         Key
Domain
Domain
                                                                                                                                                                                                                                                                                                                                                                     Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                      RESULT 28
                                                                     AAP9113
```

```
New type-IV collagenase peptide fragments - used for metallo-proteinase detection and inhibition and for producing antibodies for enzyme
                                                                                                                                                                                                             Liotta LA, Stetlerste W, Krutzsch H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure, Fig 1; -pp; English
89US-00317407
                                                           89US-00317407
                                                                                                                      (USDC ) US NAT CANCER INST
(USDC ) US SEC OF COMMERCE.
                                                                                                                                                                                                                                                                            WPI; 1990-290093/38.
                                                                                                                                                                                                                                                                                                                                                                                               detection.
```

80

쇰

ઠે

29

* RESULT

```
Type IV procollagenase was purified from human A2058 melanoma cells. The complete amino acid sequence was determined (see also Hoyhtya, M. et al, (1988) FEBS Letters 233, 109-113). Based on this sequence, peptides were synthesised (see features) having homology with a histidine contg. domain at residues 371-386, a cysteine contg. domain at residues 200-370, the 80 tersidue amino terminus or a region 159 residues from the carboxy terminus. These regions correspond to the domain of the enzyme involved in enzyme activation and interaction of the enzyme with the substrate. They can be useful in metalloproteinase detection and inhibition. They can be used in the treatment of inappropriate angiogeness1s, arthritis, tumour growth, invasion and metastasis and granulomatcus inflammatory conditions such as sarciodisis. The peptides can be used to produce antibodise. Peptide 6, at conc. of 0.1 mM inhibited 80% of the correct the patent number format of US Government-owned NTIS submitted to correct the patent number format of US Government of Evident numbers. For further information please visit the Derwent web site at www.derwent.com/dwpi/updates/fitis us.html.) (Updated on 25-MAR-2003 to correct PA field.) (Updated on 25-MAR-2003 to correct PI field.)
                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matrix metalloprotease; inhibitor; tissue damage; angiogenesis; antibody; arthritis; tumour growth; granulomatous inflammatory condition; enzyme; metastasis; sarcoidosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matrix metallo:proteinase peptide(s) - used to inhibit enzyme in treating tissue damage caused by activated enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 60; DB 2; Length 631;
100.0%; Pred. No. 0.065;
tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note= "designated in specification as U"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human type IV matrix metalloprotease protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Liotta LA, Stetlerste W, Krutzsh H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY07350 standard; protein; 631 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Fig 1; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           89US-00317407.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90US-00488460.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            89US-00317407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (USDC ) US SEC OF COMMERCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1990-290458/38.
                                                                                                                                                                                                                                                                                                                                                     Sequence 631 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAR-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-MAR-2003
16-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAR-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-FEB-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-SEP-1990.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO9010228-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY07350;
                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
```

```
The present sequence represents the mature protein of human matrix
metalloprotease-2 (MMP-2). Fragments of this protein (AAW41228-33) are
able to act as alpha-v-beta-5 antagonists. Alpha-v-beta-5 is a
correctin receptor. Inhibitors of alpha-v-beta-5 can inhibit
an inhibitor of anglogenesis i.e. an alpha-v-beta-5 antagonising
contains an inhibitor of anglogenesis i.e. an alpha-v-beta-5 antagonising
polypeptide that binds to integrin alpha-v-beta-5 antagonising
contains an inhibitor of integrin alpha-v-beta-5 antagonising
contains an inhibitor of sugiogenesis i.e. an alpha-v-beta-5 antagonising
contains an inhibitor of sugiogenesis or metagonises are used to inhibit
conjuganesis in inflamed tissue, in solid tumours or metagtases, and in a
conjuganesis in inflamed tissue, or corneal transplants). They are
conjugantly used to induce regression or to inhibit growth of tumours.
Confidently used to induce regression or to inhibit growth of tumours.
Confidently used to induce regression or to inhibit growth of tumours.
Considently used to induce regression or to inhibit growth of tumours.
Considently used to induce regression or to inhibit growth of tumours.
Considently used to induce regression or to inhibit growth of tumours.
Considently used to induce regression or to inhibit growth of tumours.
Considently used to induce regression or to inhibit growth of tumours.
Considently maderal muscle cells following angloplasty and to reduce blood supply to selected tissues. The antagonists particularly
                                                                                                                                                                                                                                                                                                                                                   ö
                                                                 MWPB, e.g. for treating inappropriate angiogenesis, arthritis, tumour growth, invasion and metastasis and granulomatous inflammatory conditions such as sarcoidosis. Antibodies to the peptides can be used to detect the MMPB and can distinguish activated from latent enzyme. (Updated on 25-MAR -2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PR field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Packaging material containing polypeptide antagonist of alphav, beta5 integrin - used for inhibition of angiogenesis, and for treating tumours,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matrix metalloprotease-2; MMP-2; alpha-v-beta-5 antagonist; treatment; vitronectin receptor; inhibition; angiogenesis; integrin; tumour growth; restenosis; neovascularisation.
       zymogen (precursor protein). The invention relates to MMP inhibitor peptides which can be used to treat tissue damage caused by activated MMPs, e.g. for treating inappropriate andiomensis anti-tissue damage.
sequence represents a human type IV matrix metalloprotease (MMP)
                                                                                                                                                                                                                                                                                                                                                      Gapa
                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human mature matrix metalloprotease-2 (MMP-2) protein sequence.
                                                                                                                                                                                                                                                                                                    DB 2; Length 631;
                                                                                                                                                                                                                                                                                                 100.0%; Score 60; DB 2; Length 63
100.0%; Pred. No. 0.065;
ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Brooks P, Cheresh DA, Friedlander M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW41226 standard; protein; 631 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Fig 16; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       integrin - used for inhibition inflammation, eye diseases etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97WO-US009099.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                96US-0015869P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96US-0018733P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-JUN-1998 (first entry)
                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (SCRI ) SCRIPPS RES INST
                                                                                                                                                                                                                                                                                                                                                                                                     1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1998-041758/04.
                                                                                                                                                                                                                                                    Sequence 631 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9745447-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-MAY-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31-MAY-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW41226;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAW41226
8888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 in blocking cancer invasion and metastasis. The invention relates to matrix metalloproteinase-2 (MMP-2) peptides. The synthetic oligopeptides are useful as pharmaceutical compositions for blocking or treating cancer invasion and metastases in a human patient. In particular, they are useful for treating brain cancer, lung cancer, skin cancer or breast cancer. The oligopeptides are also useful as vaccines for preventing these cancers, enhancing immune response or raising antibodies for assays used to diagnose diseases involving matrix metalloproteinases or clinical monitoring of the progression or regression of disease. They are also useful in gene therapy. The present sequence is the human MMP-2 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New synthetic oligopeptide, useful for blocking or treating cancer
invasion and metastases in a human patient, particularly as a vaccine for
treating or preventing diagnosing brain cancer, lung cancer, skin cancer
or breast cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     present invention relates to novel synthetic oligopeptides effective
inhibit neovascularisation where this is induced by cytokines, e.g. transforming growth factor alpha, epidermal growth factor or especially vascular endothelial growth factor
                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                            Cancer; metastasis; matrix metalloproteinase-2; MMP-2; vaccine;
                                                                                                                                            ö
                                                                                                      100.0%; Score 60; DB 2; Length 631; 100.0%; Pred. No. 0.065;
                                                                                                                                           0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                            immune response; gene therapy; cytostatic; enzyme; human.
                                                                                                                                                                                                                                                                                                                                                                                                           Human matrix metalloproteinase-2 (MMP-2) protein.
                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                  ADM48668 standard; protein; 631 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rath M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 1; Fig 1; 11pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-JAN-2002; 2002US-0351317P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23-JAN-2003; 2003US-00350258
                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Netke S, Niedzwiecki A,
                                                                                                                                           10; Conservative
                                                                                                                                                                             1 NYNFFPRKPK 10
                                                                                                                                                                                                             80 NYNFFPRKPK 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (NETK/) NETKE S.
(NIED/) NIEDZWIECKI A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2003-897356/82
                                                                                                                          Best Local Similarity
                                                                        Sequence 631 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 631 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US2003139345-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (RATH/) RATH M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                       03-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24-JUL-2003.
                                                                                                                                                                                                                                                                                                                                      ADM48668;
                                                                                                        Query Match
                                                                                                                                            Matches
   883333
                                                                                                                                                                                                                                                                                                    ઠ
```

```
The invention relates to a method of inhibiting angiogenesis in a tissue by the administration of a composition comprising an organic peptidomimentic antegorise of integrin alpha-V beta-3 (vitronectin receptor). The integrin alpha-V beta-3 antegonist and compositions containing it are useful for inhibiting angiogenesis in a variety of medical conditions. The antagonist may be used to induce the regression of solid tumours or solid tumour metastases; to inhibit the growth of solid tumours undergoing neovascularisation; to treat inflamed tissue in which neovascularisation is occurring (e.g., in rheumatoid arthritis); to treat neovascularisation in retinal tissue (e.g., in diabetic retinopathy); to treat restenosis in a tissue by inhibiting smooth muscle cell migration (such as that which occurs following angioplasty); and to treduce the blood supply to a tissue required to support new growth of the tissue. The present sequence represents human mature matrix
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Administration of composition comprising organic peptidomimetic alpha-v
beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue
angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
                                                                                                                                                                                                                                    vitrofictin receptor antagonist; nedvascularisation; cancer; tumour; inflammation; rheumatoid arthritis; retina; diabetic retinopathy; restenosis; smooth muscle cell migration; angioplasty; antiangiogenic; cytostatic; antiinflammatory; antiarthritic; antirheumatic; ophthalmological; antidiabetic; vasotropic; muscular-gen.; peptidomimetic; matrix metalloprotease 2; MMP-2; gelatinase; human;
                                                                                                                                                                                                                      Angiogenesis inhibitor; integrin alpha-V beta-3 antagonist;
                                                                                                                                                                                                                                                                                                                                                                                                                                            "Corresponds to SEQ ID NO:17"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Corresponds to SEQ ID NO:20"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Corresponds to SEQ ID NO:21"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note= "Corresponds to SEQ ID NO:22"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         note = Corresponds to SEQ ID NO:18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ü
                                                                                                                                                                                    Human mature matrix metalloprotease (MMP-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              to SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Corresponds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 2; Fig 7A-C; 184pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                          Socation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                          439. .631
/label = Hemopexin_
                                                                                ADT05996 standard; protein; 631 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-MAR-2003; 2003US-00402212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-MAR-2004; 2004WO-US009321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . .546
/note= "Cr
.39
                                                                                                                                                                                                                                                                                                                                                                                                                     /note= "r-
3°
                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (SCRI ) SCRIPPS RES INST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note=
80 NYNFFPRKPK 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2004-737508/72.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cheresh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO2004087057-A2
                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                     30-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-0CT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Brooks PC,
                                                                                                                   ADT05996;
                                                                                                                                                                                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Region
                                                  RESULT 33
                                                                    ADT05996
```

Gaps

ò

100.0%; Score 60; DB 7; Length 631; 100.0%; Pred. No. 0.065; tive 0; Mismatches 0; Indels

Local Similarity 100. nes 10; Conservative

Query Match Best Local 9 Matches 10

```
metalloprotease 2 (MMP-2, gelatinase) used in an example of the
           invention.
                                                                                                                                                                                                                               AAB20490;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (SMIK)
                                                                                                                                                                              RESULT 35
                                                                                                                                                                                          AAB20490
 SKKK
                                                                                                                                                                                                        셤
                                                                                                                ઠે
                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a method of inhibiting angiogenesis in a tissue by the administration of a composition comprising an organic peptidomimetic antagonist of integrin alpha-V beta-3 (virtonectin receptor). The integrin alpha-V beta-3 antagonist and compositions containing it are useful for inhibiting angiogenesis in a variety of medical conditions. The antagonist may be used to induce the regression of solid tumours or solid tumour metastases, to inhibit the growth of solid tumours undergoing neovascularisation; to treat inflamed tissue in which neovascularisation is occurring (e.g., in rheumatoid arthritis); to treat neovascularisation in retinal tissue (e.g., in diabetic retinopathy); to treat restences in a tissue by inhibiting smooth muscle cell migration (such as that which occurs following angioplasty); and to reduce the blood supply to a tissue required to support new growth of the tissue. The present sequence represents mouse mature matrix
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Administration of composition comprising organic peptidomimetic alpha-v beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
                                                                                                                                                                                                                                                                                                     Angiogenesis inhibitor; integrin alpha-V beta-3 antagonist; vitronectin receptor antagonist; neovascularisation; cancer; tumour; inflammation; rheumatoid arthritis; retina; diabetic retinopathy; restenosis; smooth muscle cell migration; angioplasty; antiangiogenic; cytostatic; antiinflammatory; antiarthritic; antirheumatic; ophthalmological; antidiabetic; vasotropic; muscular-gen; peptidomimetic; matrix metalloprotease 2; MMP-2; gelatinase; mouse;
                                                                                       Gaps
metalloprotease 2 (MMP-2, gelatinase) used in an example of the
                                                                                       ö
                                                           100.0%; Score 60; DB 8; Length 631;
100.0%; Pred. No. 0.065;
iive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                Mouse mature matrix metalloprotease (MMP-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                           441. .633
/label = Hemopexin_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 2; Fig 7A-C; 184pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                    ADT05997 standard; protein; 633 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-MAR-2003; 2003US-00402212.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-MAR-2004; 2004WO-US009321
                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (SCRI ) SCRIPPS RES INST.
                                                                                    10; Conservative
                                                                                                             1 NYNFFPRKPK 10
                                                                                                                                        89
                                                                                                                            |||||||||||
80 NYNPFPRKPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Brooks PC, Cheresh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2004-737508/72.
                                                                         Similarity
                                    Sequence 631 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO2004087057-A2
                                                                                                                                                                                                                                                                                                                                                                                                murine; enzyme.
                                                                                                                                                                                                                                                       30-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-OCT-2004.
           invention.
                                                                                                                                                                                                                             ADT05997;
                                                            Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Key
Domain
                                                                                                                                                                                                                                                                                                                                                                                                                         fus sp.
                                                                                    Matches
                                                                                                                                                                           RESULT 34
                                                                                                                                                                                        ADT05997
ID ADT
                                                                                                                                     셤
                                                                                                                                                                                                                   88833
                                                                                                              8
```

```
The present sequence is that of human matrix metalloproteinase-2 (WMP-2), previously known as 72 kDa gelatinase and gelatinase A. MMP-2 is capable of degrading the extracellular matrix components of the basement membrane. The invention relates to methods for treating pain in a patient of mainistration of an inhibitor of MMP-2 and MMP-9 (see AAB20491). The administration of an inhibitor of MMP-2 is useful for treating nerve clasue damage (claimed), where the patient is suffering from a disease or isonaer selected from stroke, haemorrhage, reperfusion injury, cerebral isonaer selected from stroke, haemorrhage, reperfusion injury, crebral isonaer selected from stroke, namorrhage, reperfusion injury, crebral creating a disease, disorder or nerve tissue damage selected from enhanced or exaggerated sensitivity to acute pain, burn pain, atypical enhanced or exaggerated sensitivity to acute pain, burn pain, atypical and II, arthritic pain, sports injury pain, pain related to virus infection, post-herpetic neuralgia, phantom limb pain, labour pain, conditions/visceral pain, neuralgia, painful diabetic retinopathy, conditions/visceral pain, neuralgia, painful diabetic retinopathy, craumetic nerve injury, and tolerance to narcotics or withdrawal from arcotics (claimed). WMP-2 polypeptides can also be used to screen for
                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Polypeptide for the treatment of pain and the reduction of tissue damage comprises an inhibitor of human matrix metalloproteinase.
                                                                                                                                                Gaps
                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matrix metalloproteinase-2; MMP-2; human; pain; analgesic; nerve tissue damage; stroke; haemorrhage; reperfusion injury; cerebral ischaemia; cerebral infarction; narcotic tolerance; narcotic withdrawa.
                                                                      DB 8; Length 633;
                                                                                                                                            Indels
                                                                                                                                            ö
                                                                  100.0%; Score 60; DB 8; 100.0%; Pred. No. 0.065;
                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Romanic Arnold A, Barone FC, Bingham S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human matrix metalloproteinase-2 (MMP-2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAB20490 standard; protein; 644 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (SMIK ) SMITHKLINE BEECHAM CORP.
(SMIK ) SMITHKLINE BEECHAM PLC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; Fig 2; 61pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99US-0158787P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11-OCT-2000; 2000WO-US027949.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-JUN-2001 (first entry)
                                                      Ouery Match
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                      1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                            89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-290654/30.
                                                                                                                                                                                                                                                                                            80 NYNFFPRKPK
Sequence 633 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; AAF30807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200126671-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-APR-2001.
```

Matches

ద

ઠ

ဝ္ပ

```
connective tissue derived growth factor; CTGF; chrysalin; VEGF; keratincoyte-derived growth factor; KGF; epidermal growth factor; EGF; eransforming growth factor-beta; TGF-beta; martix metalloproteinase; MMP; granulocyte macrophage colony stimmlating factor; GM-CSF; uPA; vascular endothelial growth factor; urokinase plasminogen activator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The specification describes a pharmaceutical composition, comprising a growth factor, an inhibitor agent, i.e. a protease. The inhibitor agent inhibits the action of at least one specific adverse protein, i.e. a protease, that is upregulated in a damaged tissue such as a wound environment. Growth factors which are included in the composition of the invention are platelet-derived growth factor (FDGF), fibroblast growth factor (FGF), connective tissue derived growth factor (CTGF), reansforming growth factor-beta (TGF-beta), granulacyte macrophage colony stimulating factor (GM-CSF), and chrysalin. Inhibitors which are included in the composition of the invention include inhibitors of uroxinase-type plasminosen activator (UMPA) and matrix metalloproteinase (MMP). The composition is useful for the treatment of chronic damaged tissue, i.e. wounds and dermal ulcers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sequence represents a human MMP-2, and is used to produce the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; matrix metalloproteinase; MMP-2; hair growth; antisense therapy; endopeptidase; skin cell; breast cancer; hair follicle; chromosome 11q22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ition for the treatment of damaged tissue i.e. chronic wounds and ulcers comprises an inhibitor agent i.e. a protease and a growth
platelet-derived growth factor; PDGF; fibroblast growth factor; FGF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 60; DB 4; Length 660; 100.0%; Pred. No. 0.068;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                           Mcintosh FS, Occleston NL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human matrix metalloprotinase-2 (MMP-2) protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Page 552; 572pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAE10431 standard; protein; 660 AA.
                                                                                                                                                                                                                                                            21-DEC-2000; 2000WO-IB001935
                                                                                                                                                                                                                                                                                                 99GB-00030768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   composition of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                           Davies MJ, Huggins JP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-418351/44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Composition for the
                                                                                                                                                                                                                                                                                                                                  (PFIZ ) PFIZER LTD
                                                                                                                                                                                                                                                                                                                                                      (PFIZ ) PFIZER INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB; AAH28222
                                                                                                                                                                                    WO200149309-A2
                                                                                                                                                                                                                                                                                               29-DEC-1999;
                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAE10431;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAE1043
 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     - used in treatment of hypertrophic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               catalysing cleavage of extracellular matrix macromolecules, and in treatment of hypertrophic scars, keloids and invertebral disc disease. (Updated on 25-MAR-2003 to correct PA field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cDNA clone enables production of type IV collagenase, useful in
                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Amino acid sequence of matrix metalloproteinase gelatinase A.
                                                                                                                                                                                                                                                                                                                                                                                                            hypertrophic scars; keloids; intervertebral disc disease; ds.
                                 100.0%; Score 60; DB 4; Length 644; 100.0%; Pred. No. 0.067; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 60; DB 2; Length 660; 100.0%; Pred. No. 0.068;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Growth factor; protein inhibitor; protease; damaged tissue;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Recombinant human type IV collagenase - used in scars, keloids and intervertebral disc disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                         AAR06420 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB84607 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                       Type IV collagenase cDNA product.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 3; Fig 9; 23pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                89US-00352069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   89US-00352069
                                                                                                                                                                                                                                                                                                                 (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                      10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eisen AZ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 NYNPFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1990-245482/32.
                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; AAQ05620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 660 AA;
Sequence 644 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-MAY-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-MAY-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Goldberg GL,
                                                                                                                                                                                                                                                                                                                 25-MAR-2003
13-DEC-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US4923818-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-MAY-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10;
                                                                                                                                                                                                                                                                              AAR06420;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB84607;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loc
Matches
```

AARSULT 36
AARO6420
A

ö

Gaps

ö

RESULT 37

셤

8

AAB84607

**EXEXEXEX** 

alpha-v-beta-3 integrin receptor; thrombosis; tumour; osteoporosis; infection; veterinary medicine; rheumatoid arthritis; Crohn's disease; antimicrobial; antiseptic.

location/Qualifiers

Homo sapiens

Key Domain

Binding-site Binding-site Binding-site

466..660 /label= PEX 489..497 /label= alpha-v-beta-3_integrin_receptor_binding_site 570..585 /label= alpha-v-beta-3_integrin_receptor_binding_site 588..597

28-AUG-2001; 2001WO-EP009899 07-SEP-2000; 2000DE-01044325

WO200220566-A2

14-MAR-2002

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    used in the exemplification of the invention. MMP-25 DNA is located on chromosome 11q22. Marrix metalloproteinases are a family of zinc dependent endopeptidases that function extracellularly to degrade proteins typically found in the extracellular matrix. MMP-25 is expressed in skin cells of mammals, particularly in breast cells and hair encoding all or part of MMP by hybridising MMP-25 to a nucleic acid molecule encoding all or part of MMP by hybridising MMP-25 to a nucleic acid sample and identifying a sequence that hybridises in the nucleic acid sample. The identification step involves performing polymerase chain reaction (PCR) to amplify the hybridising sequence. MMP-25 antibody is useful for identifying type 25 MMP. WMP-25 protein inhibitors may be used to modulate hair growth and breast cancer in a mammal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           present sequence is human matrix metalloproteinase (MMP)-2 protein
                                                                                                                                                                                                                                                                                                                                                                                                Novel isolated matrix metalloproteinase-25 nucleic acid molecule and proteins encoded by them whose inhibition is useful for modulation of hair growth in mammals.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 60; DB 4; Length 660; 100.0%; Pred. No. 0.068; Dred. No. 0.068; Undels
                                                                                                28. .660
/label= Mature MMP 2 protein
                                           1. .27
/label= Signal_peptide
                                                                                                                                                                                                                                                                                                                                         MOSS P;
                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 2; Fig 3; 119pp; English.
                                                                                                                                                                                                                                                                                                                                         Smith R,
                                                                                                                                                                                                                                                                                            DARWIN MOLECULAR CORP
SCHATZMAN R.
                                                                                                                                                                                                                                   06-MAR-2001; 2001WO-US007167.
                                                                                                                                                                                                                                                                 06-MAR-2000; 2000US-0187196P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ||||||||||
109 NYNPFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                         Wang K,
                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-582276/65.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 660 AA;
                                                                                                                                                                          WO200166766-A2.
                                                                                                                                                                                                      13-SEP-2001
                                                                                                                                                                                                                                                                                                                                         Pajardo M,
                                                                      Protein
                                                                                                                                                                                                                                                                                                          (SCHA/)
                                         Peptide
                                                                                                                                                                                                                                                                                              DARW-)
                                                                                                    Domain
                                                                                                                               Domain
ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
```

```
The invention relates to peptides (ABB79414-ABB79426) derived from the C-
terminal fragment PEX of matrix metalloprotease-2 (MMP-2). Matrix MMP-2
C derivatives of formula X-Y-Z (I) and their salts and solvates are
C described. X = H, 1-10C alkanoyl or peptide fragment consisting of 1-20
naturally occurring amino acid residues; Y = peptide fragment selected
CC from the sequence region 466.660 of human Pro-MMP-2; and Z = OH, NH 2, NH
C-1-10C alkyl N(1-10C alkyl)_Z or peptide fragment consisting of 1-20
c naturally occurring amino acid residues. Primary amino groups are
CC optionally protected conventionally. The peptides and MMP-2 derivatives
CC optionally protected conventionally. The peptides and MMP-2 derivatives
CC optionally pathological processes supported or propagated by
angiogenesis, thrombosis, cardiac infaction, coronary heart disease,
CC especially pathological processes supported or propagated by
angiogenesis, thrombosis, cardiac infaction, coronary heart disease,
CC arteriosclerosis, tumours, osteoporosis, fibrosis, inflammation,
cc angiogenesis, thrombosis, osteoporosis, fibrosis, inflammation,
infections, psoriasis or wound healing deficiency. More generally the
peptides and MMP-2 derivatives are useful in human and veterinary
medicine for the treatment and/or prophylaxis of thrombosis, myocardial
infarction, apoplexy, angina pectoris, tumour diseases, osteolytic
diseases (e.g. osteoporosis or hypercalcemial, pathological angiogenic
CC diseases (e.g. inflammation), ophthalmological diseases (e.g. diabetic
crubectic glaucoma), rhematoin arthritis, ulecanic angioplasty, viral, bacterial or fungal infections, acute renal failure
CC orlutis, Crohm's disease, atherosclerosis, psoriasis, restenosis after
angioplasty, viral, bacterial or fungal infections, acute renal failure
CC or wound healing deficiency; as antimicrobial/antiseptic agents in
CC operations involving biomaterials, implants, catheres or cardiac
coperations involving biomaterials, implants, catheres or cardiac
cc that of the human MMP-2 p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New matrix metalloprotease-2 derivative peptides, are alpha-v-beta-3 integrin receptor inhibitors useful e.g. for treating thrombosis, cardiac infarction, tumors, osteoporosis, inflammation or infections.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 60; DB 5; Length 660; 100.0%; Pred. No. 0.068; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zischinsky G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Groth U,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 11; 35pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Diefenbach B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (MERE ) MERCK PATENT GMBH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2002-329868/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Jonczyk A,
```

ö

Gaps

ö

Conservative

1 NYNFFPRKPK 10

ð

Human; matrix metalloproteinase-2; MMP-2; enzyme; thrombolytic; anticoagulant; cardiant; antiarteriosclerotic; cytostatic; osteopathic; antifoammetory; antibacterial; virucide; fungicide; antipsoriatic; vulnerary; cerebroprotective; antianginal; ophthalmological; antirheumatic; antiarthritic; antiulcer; vasotropic; nephrotropic;

Human matrix metalloproteinase 2 protein.

(first entry)

08-JUL-2002

ABB79413;

ABB79413 standard; protein; 660 AA.

RESULT 39

셤

```
12-MAR-2003
                                                                                                                                             07-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABU54445;
 AAU84348;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                              (BGHM)
                                                                                                                                                                                                                       (BAAK/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABU54445
윤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to an isolated molecule comprising an antibody variable region which specifically binds to an extracellular domain of a tumour endothelial marker (TEM) protein selected from ABB90732, ABB90740, ABB90749, ABB90750 and ABB90769. The antibodies which bind to TEM proteins have cytostatic, immunostimulant and antiangiogenesis in subjects peating a vescularised tumour, polycystic kidney disease, diabetic retinopathy, rheumatoid arthritis and psoriasis. Human, mouse and rat TEM genes and the encoded proteins (ABI22075-ABI29141 and ABB90721-ABB90789) are disclosed, as are marker oligomucleotide sequences: tumour endothelial markers (TEM) ABL92196-ABL92041 and ABL92143-ABL92191; normal endothelial markers (NEM) ABL92042-ABL92041, and pan-endothelial markers
                                                                                                                                 Human; mouse; rat; TEM; tumour endothelial marker; NEM; PEM; cytostatic; normal endothelial marker; pan-endothelial marker; immunostimulant; antiangiogenic; tumour; neoangiogenesis; vascularised tumour; polycystic kidney disease; diabetes; retinopathy; rheumatoid arthritis; psoriasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                           An isolated molecule comprising an antibody variable region which specifically binds to an extracellular domain of a tumor endothelial marker (TEM) protein, useful for inhibiting tumor growth.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 60; DB 5; Length 660; 100.0%; Pred. No. 0.068; tive 0; Mismatches 0; Indels
                                                                                                                       Human Tumour Endothelial Marker polypeptide SEQ ID NO 208.
                                                                                                                                                                                                                                                                                                                                                                      Vogelstein B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 54; Page 166-168; 331pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU84348 standard; protein; 660 AA.
                                                     ABB90738 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                               01-AUG-2001; 2001WO-US024031.
                                                                                                                                                                                                                                                                                                  02-AUG-2000; 2000US-0225599P.
11-AUG-2000; 2000US-0224360P.
11-APR-2001; 2001US-0282850P.
                                                                                                                                                                                                                                                                                                                                                 SNING ONING HOPKINS
                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                       St Croix B, Kinzler KW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-291856/33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; ABL92092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 660 AA;
                                                                                                                                                                                                                                    WO200210217-A2.
                                                                                                 30-MAY-2002
                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                          07-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           109
                                                                            ABB90738;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAU84348
ID AAU8
XX
```

```
The present invention relates to a method for diagnosing breast cancer in a subject suspected of having endometrial cancer. The method comprises determining the expression of a set of human genes or expression products in an endometrial sample suspected of being cancerous. The human genes of the invention are differentially expressed in breast tumours characterised as high or low MAI (mitotic activity index). These sets of genes can be used to discriminate between high and low MAI breast tumours. The invention also provides DNA and protein microarrays for analysing the expression of the human genes and their products. The methods and arrays are useful for the diagnosis and prognosis of endometrial cancer, selecting and monitoring treatment regimes, and identification of compounds useful for the treatment of endometrial cancer. AAUB4311-AAUB4311 for the human proteins of the invention that are differentially expressed in breast cancer tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Diagnosing breast cancer comprises determining expression of nucleic acid molecules or expression products that are differentially expressed in normal and malignant tissue.
                                                                                                                                                         Human; diagnosis of breast cancer; endometrial cancer; breast tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gapa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human, endothelial cell; EC; tumour endothelial cell; TEM; NEM;
Tumour endothelial marker; normal endothelial marker; PEM;
pan-endothelial marker; polycystic kidney disease; psoriasis;
diabetic retinopathy; rheumatoid arthritis; tumour anglogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                            Protein MMP2 differentially expressed in breast cancer tissue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 660;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 60; DB 5; Length 66
100.0%; Pred. No. 0.068;
iive 0; Mismatches 0; Indels
                                                                                                                                                                                                   MAI; mitotic activity index; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 37; Page 185-187; 219pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human tumour endothelial marker TEM 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BRIGHAM & WOMENS HOSPITAL INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABU54445 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-JUL-2001; 2001WO-US023642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-JUL-2000; 2000US-0222093P
08-MAY-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity 100.
Les 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-180084/23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Baak J, Mutter GL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; ABK35568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BAAK J.
                                                                                                                                                                                                                                                                                                                                                                     WO200210436-A2.
                                                                                                                                                                                                                                                                                         Homo sapiens.
```

ö

요

à

Ношо

```
The present invention describes an anti-angiogenic composition (I) for inhibiting expression of vascular endothelial growth factor (VEGF). (I) comprises an effective amount of a peptide inhibitor of matrix metalloproteinase (MMP), where the peptide can inhibit the expression of YEGF. (I) has cytostatic, vulnerary, cardiant, cerebroprotective, antidiabetic, ophthalmological and dermatological activities. (I) can be used for inhibiting expression of YEGF, and so can be used for inhibiting growth of tumours and diminishing tumours size. The tumour can be metastatic, non-metastatic, vascularised, non-vascularised, hard or soft. (I) is also useful for treating injuries including wounds, surgical incisions, chronic wounds, heart diseases and stroke. (I) is also useful for treating disorders characterised by excessive angiogenesis e.g. macular degeneration and diabetic retinopathy. The present sequence represents the human MMP-2 protein, which is used in the exemplification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; enzyme; crystalline polypeptide; matrix metalloproteinase 9; MMP9; gelatinase; metalloproteinase mediated disease; drug design; arthritis; three-dimensional structure; MMP9 inhibitor; tumour growth; cancer metastasis; osteoarthritis; atherosclerosis; restenosis; periodontitis; multiple sclerosis; glomerulonephritis; MMP9 modulator; graft-versus-host disease; non-insulin dependent diabetes; MMP2;
                                                                                                                                                                                                                                                                                                                                                                         Anti-angiogenic composition comprising peptide inhibitor of matrix metalloproteinase, useful for decreasing the expression of vascular endothelial growth factor and treating cancers and tissue injuries.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 60; DB 6; Length 660; 100.0%; Pred. No. 0.068;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human matrix metalloproteinase 2 (MMP2) gelatinase protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 1; Page 43-44; 103pp; English.
                                                                                                                                                                                                                         (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AA016608 standard; protein; 660 AA
                                                                                                                           16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
                                                                            15-AUG-2002; 2002WO-US026319.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-JUN-2002; 2002WO-SE001266.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    matrix metalloproteinase 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                           WPI; 2003-381408/36.
                                                                                                                                                                                                                                                                               Weart IF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO2003002729-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-MAY-2003
                              36-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AA016608;
                                                                                                                                                                                                                                                                          Quirk S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AA016608
     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New purified human transmembrane protein, designated as tumor endothelial marker (TEM) 3, useful for detecting, diagnosing or treating tumors, polycystic kidney disease, diabetic retinopathy, rheumatoid arthritis or psoriasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; matrix metalloproteinase; MMP; anticancer; wound healing; matrix metalloproteinase inhibitor; antitumour; antiangiogenic; cardiant; vascular endothelial growth factor inhibitor; VEGF inhibitor; cytostatic; vulnerary; cerebroprotective; antidiabetic; ophthalmological; tumour; dermatological; metastatic; non-metastatic; vascularised; heart disease; non-vascularised; surgical inclsion; chronic wound; stroke; angiogenesis; macular degeneration; diabetic retinopathy; cleavage region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention relates to a novel method for the isolation of endothelial cells (ECs), and the identification of genes expressed in normal and tumour ECs. Tumour endothelial marker (TEM), normal endothelial marker (TEM), normal identified in human ECs. The human EC marker proteins and the polymucleotide sequences encoding them are useful for detecting, diagnosing or treating tumours as well as polycystic kidney disease, diabetic retinopathy, rheumatoid arthritis, and psoriasis. They are also useful for inhibiting neoangiogenesis or tumour anglogenesis, for inducing an immune response to tumour endothelial cells in a patient, or for identifying candidate drugs for treating tumours. The present for identifying candidate drugs for treating tumours. The present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
neoangiogenesis; immune response; cytostatic; antidiabetic; ophthalmological; antirheumatic; antiarthritic; antipsoriatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 60; DB 6; Length 660;
100.0%; Pred. No. 0.068;
iive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                Kinzler KW, Vogelstein B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human matrix metalloproteinase 2 protein SEQ ID NO:14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 173-174; 374pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABP97136 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                St Croix B,
                                                                                                                                                                                                                                                                        11-APR-2001; 2001US-0282850P, 06-PEB-2002; 2002US-0354262P,
                                                                                                                                                                                                                       10-APR-2002; 2002WO-US008253
                                                                                                                                                                                                                                                                                                                                               SNINGO UNIV (OLYU)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2003-093016/08.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB; ABX72017.
                                                                                                                                                                                                                                                                                                                                                                                                Carson-Walter B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO2003018748-A2
                                                                                                                        40200283874-A2
                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                      24-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABP97136;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
```

Matches

δ ద 5X8X5X5X5X5X5X5X5X5X5X5X5

ö

Gaps

ö

0; Indels

```
The present invention relates to peptide inhibitors of metalloproteinases (MMPs), particularly metalloproteinase-2 (MMP-2). The inhibitors have peptide sequences related to the cleavage regions of the proenzyme forms of the MMPS. The peptide inhibitors are useful for stimulating cellular prollferation of fibroblasts or keratinocytes, promoting healthy skin reducing metaling and for smallating the development treating wounds, preventing scarring; improving skin tone, reducing wrinking and for simulating the development of smooth, healthy skin skin. The peptide inhibitors are useful as anti-aging and wound healing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New substantially purified polypeptide, useful for diagnosing or treating a hypoxia-regulated condition, such as cancer, ischemia, reperfusion injury, retinopathy, pre-eclampsia, atherosclerosis, inflammation, or wound healing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             human; disease state; cytostatic; antiinflammatory; ophthalmological; antiarteriosclerctic; vulnerary; gene therapy; hypoxia-regulated condition; tumourigenesis; angiogenesis; apoptosis; inflammation; erythropoiesis; glycolysis; gluconeogenesis; glucose transportation; catecholamine synthesis; iron transport; nitric oxide synthesis; cancer; ischaemic condition; reperfusion injury; retinopathy; neonatal stress; pre-eclampsia; atherosclerosis; inflammatory condition; wound healing.
                                                                                      Novel peptide inhibitor of proteinase activity of matrix metalloproteinase.2, useful for stimulating cellular proliferation of fibroblasts or keratinocytes.
                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 60; DB 6; Length 660; 100.0%; Pred. No. 0.068; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kingsman SM, White J, Ward NR, Harris RA, Naylor S,
                                                                                                                                                                                                                                                                                                                                                   compounds. The present sequence represents human MMP-2
                                                                                                                                                               Example 1; Page 41-42; 120pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human disease related protein SegID9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADD18578 standard; protein; 660 AA.
               Villanueva JM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (OXFO-) OXFORD BIOMEDICA UK LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-AUG-2001; 2001GB-00020558.
05-OCT-2001; 2001GB-00024037.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-AUG-2002; 2002WO-GB003892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 100.
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2003-290046/28.
                                                  WPI; 2003-289980/28
               Malik S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; ADD18579.
                                                                                                                                                                                                                                                                                                                                                                                       Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO2003018621-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADD18578;
                 ŝ
               Quirk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADD1857
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention comprises a crystalline form of a polypeptide corresponding to the catalytic domain of matrix metalloproteinase 9 (MMP9) protein - a gelatinase. The crystalline polypeptide of the invention is useful for treating a metalloproteinase mediated disease or condition in a warm-blooded animal. The crystalline polypeptide is also useful for cherming the three-dimensional structure of the MMP9 catalytic domain is useful for rational drug design, and the atomic coordinates of the catalytic domain is useful for rational drug design, and the atomic coordinates of the Companies of preferance of preferance of preferance of preferance of many preferance of preferance of preferance of preferance of preferance of many preferance or condition, such as: tumour growth; metalloproteinase mediated disease or condition, such as: tumour growth; metalloproteinase mediated disease or condition, such as: tumour growth; metalloproteinase series and non-insulin dependent diabetes. The present metalloproteinase 2 (MMP2) amino acid sequence represents a human matrix metalloproteinase 2 (MMP2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                               Novel crystalline form of a polypeptide corresponding to the catalytic domain of matrix metalloproteinase 9 protein, useful for selecting or designing chemical modulators which are used for treating diabetes,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; peptide inhibitor; matrix metalloproteinase-2; MMP-2; cleavage region; proenzyme form; cellular proliferation; fibroblast; keratinocyte; healthy skin development; wound healing; scarring; skin tone; wrinkle; anti-aging; vulnerary.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 60; DB 6; Length 660;
100.0%; Pred. No. 0.068;
iive 0; Mismatches 0; Indels
                                                                                          ŝ
                                                                                          Rowsell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human matrix metalloproteinase-2 (MMP-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (KIMB ) KIMBERLY-CLARK WORLDWIDE INC.
                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABG76322 standard; protein; 660 AA.
                                                                                                                                                                                                                                                          Disclosure, Fig 7; 227pp; English.
                                                                                          Pauptit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-AUG-2001; 2001US-0312726P.
21-DEC-2001; 2001US-00032376.
21-MAY-2002; 2002US-00153185.
               27-JUN-2001; 2001SE-00002298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-AUG-2002; 2002WO-US026198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 NYNFFPRKPK 10
                                                    (ASTR ) ASTRAZENECA AB
                                                                                        Minshull C,
                                                                                                                             WPI; 2003-201502/19
                                                                                                                                                                                                                       cancer, arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO2003016520-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-FEB-2003.
                                                                                          Jepson H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABG76322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
```

Gaps

0;

8

Mundy

```
This invention relates to novel human genes and gene product which are implicated in certain disease states. Compounds which modulate the proteins of the invention may have cytostatic, antiinflammatory. Ophthalmological, antiarteriosclerotic or vulnerary activities. The sequences of the invention may be useful for gene therapy. The invention may be useful for gene therapy. The invention may be useful for diagnosing or treating a hypoxia-regulated condition, such as tumourigenesis, angiogenesis, apptosis, inflammation, erythropoiesis, or the biological response to hypoxia conditions including processes such as glycolysis, gluconeogenesis, glucose transporterion, catecholamine synthesis, iron transport or nitric oxide synthesis. The disease includes cancer, ischaemic conditions, reperfusion injury, retinopathy, neonatal stress, pre-eclampsia, atherosclerosis, inflammatory, conditions, reconsistinflammatory.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a disease related protein of the invention.
                           Claim 25; SEQ ID NO 9; 424pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 660 AA;
```

```
Gaps
                                   ö
     100.0%; Score 60; DB 7; Length 660; 100.0%; Pred. No. 0.068;
                                 0; Indels
                                 0; Mismatches
Query Match
Best Local Similarity 100.
Matches 10; Conservative
                                                            ŝ
```

1 NYNFFPRKPK 10

109 NYNFFPRKPK 118

셤

ADP65244; RESULT 47

ADP65244 standard; protein; 660 AA. (first entry) 12-AUG-2004

autoimmune disease, arthritide, gene expression analysis, rheumatoid arthritis, collagen-induced, immunosuppressive; antirheumatic; antiarthritic, osteopathic; antigout, antiinflammatory; dermatological; immunomodulatory; lupus; ankylosing spondylitis; Fibrositis; fibromyalgia; osteoarthritis; gout; juvenile rheumatoid arthritis; Human matrix metalloproteinase 2 preproprotein, gelatinase A, 72kD type. immune; human 

Homo sapiens

WO2003072827-A1.

04-SEP-2003.

31-OCT-2002; 2002WO-US035433.

31-OCT-2001; 2001US-0336220P.

(CHIL-) CHILDREN'S HOSPITAL MEDICAL CENT.

Thorton SL; Hirsch R,

WPI; 2003-712740/67. GENBANK; NP_004521.

Diagnosing and analyzing autoimmune disease using gene expression profiles and microarray technology, useful for diagnosing and treating rheumatoid arthritis, lupus, fibrositis, osteoarthritis, fibromyalgia and gout.

Disclosure; Page; 56pp; English.

The invention relates to a novel method for diagnosing and analysing autoimmune disease or arthritides. The method comprises obtaining a patient sample containing mRNA, analysing gene expression using the mRNA

that results in a gene expression signature of the mRNA, and using that gene expression signature to diagnose or analyse the autcimmune disease or arthritides in the patient, where gene expression of at least 60% of the genes correlates with that of the gene signature. The invention of further comprises: a treatment of rheumatoid arthritis; identification of genes for targeting in the treatment of rheumatoid arthritis; in a mammal other than a mouse; diagnosis of rheumatoid arthritis; in a mammal array or gene chip, specific for rheumatoid arthritis; diagnosis or analyses of autoimmune disease or rheumatoid arthritis; sceening the efficacy of a candidate drug in vitro for the treatment of collageninduced arthritis; and reducing the symptoms associated with collageninduced arthritis. The compositions of the invention have the following activities: immunosuppressive, antirheumatic, antiarthritic, osteopathic, antigout, antinflammatory, dermatological, and immunomodulatory. The methods and compositions of the present invention are useful for diagnosing and treating autoimmune disease or arthritides, such as rheumatoid arthritis, lupus, ankylosing spondylitis, fibrositis, and immune disease caused by an infectious agent. This sequence represents a protein sequence relating to the genes used in the analysis and treatment of autoimmune diseases or arthritides. Note: This sequence is not shown in the specification. It has been supplied in an electronic format from 

Sequence 660 AA;

ö

Gaps ö 100.0%; Score 60; DB 7; Length 660; 100.0%; Pred. No. 0.068; o; Mismatches 0; Indels 10; Conservative Local Similarity Query Match Matches

ö

셤 à

RESULT

ADN07697 standard; protein; 660 AA. ADN07697; 

Human matrix matalloproteinase 2 protein.

01-JUL-2004 (first entry)

Protease; stem cell; bone marrow failure disorder; aplastic anaemia; myeloproliferative disorder; multiple myeloma; gene therapy; human; matrix metalloproteinase; MMP; enzyme.

Homo sapiens

US2004071687-A1

15-APR-2004.

28-MAY-2003; 2003US-00447315. 28-MAY-2002; 2002US-0383658P

(RAFI/) RAFII S. (HEIS/) HEISSIG B. (HATT/) HATTORI K. (HEIS/) (HATT/) Rafii S, Heissig B, Hattori K;

WPI; 2004-328523/30. N-PSDB; ADNO7698

GENBANK; 11342666.

Recruiting adult stem cells in an animal for treating aplastic anemia or multiple myeloma by administering a protease or its activator so that the stem cells can proliferate, self-renew, differentiate or mobilize to a target site

XXXXXXXXXXXXXX

```
셤
ŝ
                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention provides peptides and compositions containing such peptides that are useful as agents to maintain healthy skin and to promote the condition of the skin. The invention is useful for increasing the amount of fibronectin in itssue. The invention is also useful for encouraging the maintenance and development of healthy skin, preventing and treating winkles and for treating wounds. The invention acts as vulnerary and dermatological agents. The present sequence is human matrix metalloproteinase-2 (MMP2) protein. This sequence is used in the
                                                                cells from the niches they normally occupy. The invention is useful for recruiting adult stem cells for treating bone marrow failure disorder such as applastic anaemia and myeloproliferative disorder such as multiple myeloma. The invention is also useful in gene therapy. The present sequence is human matrix metalloproteinase (MMP) protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Composition used for preventing and treating wrinkles and treating wounds comprises peptide having sequence related to matrix metalloproteinase
                                               present invention relates to the use of proteases to recruit stem
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fibronectin, healthy skin; wrinkle; wound; vulnerary; dermatological; human; matrix metalloproteinase; MMP.
                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                100.0%; Score 60; DB 8; Length 660; 100.0%; Pred. No. 0.068;
                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human matrix metalloproteinase-2 (MMP2) protein.
                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 1; SEQ ID NO 14; 60pp; English.
               Disclosure; SEQ ID NO 3; 77pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                ADQ17097 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-DEC-2002; 2002US-00335207.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-DEC-2002; 2002US-00335207.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                   10; Conservative
                                                                                                                                                                                                                                                                                                          109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                       1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2004-506456/48.
                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Malik S, Quirk S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MALIK S.
QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 660 AA;
                                                                                                                                                                              Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US2004127421-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (MALI/) MALIK
(QUIR/) QUIRK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-SEP-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JUL-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        proenzyme
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADQ17097;
                                                                                                                                                                                                                                                     Matches
```

RESULT

요

ઠે

ô

Gaps

ö

100.0%; Score 60; DB 8; Length 660; ilarity 100.0%; Pred. No. 0.068; Conservative 0; Mismatches 0; Indels

Query Match Best Local Similarity Matches 10; Conserva

```
The invention relates to the use of a protease with defined specificity for a target substrate for preparing a medicament for the treatment of a specific disease related to the target substrate. The invention also relates to a pharmaceutical or diagnostic composition comprising one or diagnostically acceptable carriers, excipients and/or auxiliary agents, and a method for cleaving a target substrate with a protease as cited in the use mentioned, and a method for treatment of a disease in a patient connected with a specific target substrate comprising administering to the parient of the protease with defined specificity for the specific target substrate comprising administering to the parient one or more biological activities, physico-chemical properties or pharmacological properties of the target protein and/or activates or increases one or more biological activities, physico-chemical properties or increases one or more biological activities, physico-chemical properties or increases one or more biological activities, physico-chemical properties or increases one or more biological activities, physico-chemical properties or increases one or more biological properties of the target protein and/or adds one or physical properties of the target protein, and/or adds one or physical properties of the target protein, and/or adds one or physical properties of the target protein, and/or adds one or physical properties of the target protein, and/or adds one or physical properties of the target protein, and/or adds one or physical properties of the target protein, and/or adds one or physical properties or the protein and physical properties or the properties or the protein and physical properties or the protein and physical properties or physical protein and physical properties or physical protein and physical protein and physical protein and physical protein and physica
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           growth disorder; respiratory disease; genitourinary disease; gynecological disorder; nutritional disorder; infection; cytostatic; gynecological disorder; nutrificanal cytostatic; antianthatic; antigenthatic; antigenthatic; antigenthic; anticological; nephrotropic; cardiovascular-gen.; lumunosuppressive; respiratory-gen.; antipsoriatic; antiallergic; dermatological; enzyme; hydrolysis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 more biological activities, physico-chemical properties or pharmacological properties to the target protein. The protease may be administered to treat immune disorders, inflammatory disorders, musculoskeletal diseases, dermatological diseases, gastrointestinal diseases, endocrine diseases, metabolic disorder, cancers, hematological diseases, cardiovascular diseases, neurological diseases,
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Protease; immune disorder; inflammation; musculoskeletal disease; dermatological disease; gastrointestinal disease; endocrine disease; metabolic disorder; cancer; hematological disease; cardiovascular disease; neurological disease; neurodegenerative disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sful for
such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kettling U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Proteases with defined specificity for a target substrate useful treating a specific disease related to the target substrate, such cancer, asthma, diabetes, inflammatory disorders and psoriasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Haupts U, Koltermann A, Scheidig A, Voetsmeier C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 43; SEQ ID NO 131; 250pp; English.
                                                                                                                                                                                                                                                                                                                                                                                               Protease-hydrolysed polypeptide #78
                                                                                                                                                                                                         ADV90301 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-JUN-2003; 2003EP-00013819.
10-NOV-2003; 2003EP-00025851.
11-NOV-2003; 2003EP-00025871.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-JUN-2004; 2004WO-EP051173.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-NOV-2003; 2003EP-00025871
11-FEB-2004; 2004EP-00003058
                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (DIRE-) DIREVO BIOTECH AG.
                                   109 NYNFFPRKPK 118
1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2005-057985/06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO2004113522-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                  10-MAR-2005
                                                                                                                                                                                                                                                                     ADV90301;
                                                                                                                                                                               ADV90301
```

```
chondrosarcoma cells comprising an amount of a peptide and a pharmaceutical carrier. The invention may be useful for the production of compounds with a cytostatic activity acting as metalloprotease 1 inhibitors, metalloprotease 2 inhibitors, metalloprotease 3 inhibitors, metalloprotease 5 inhibitors, metalloprotease 5 inhibitors, metalloprotease 7 inhibitors, metalloprotease 9 inhibitors, metalloprotease 1 inhibitors, metalloprotease 1 inhibitors, metalloprotease 11 inhibitors, metalloprotease 11 inhibitors, metalloprotease 11 inhibitors or metalloprotease 12 inhibitors, metalloprotease 13 inhibitors or metalloprotease inhibitors, metalloprotease 13 inhibitors or metalloprotease inhibitors, metalloprotease 13 inhibitors or metalloprotease inhibitors, metalloprotease 12 inhibitors, metalloprotease 13 inhibitors or metalloprotease 12 inhibitors, metalloprotease 13 inhibitors or metalloprotease 12 inhibitors, metalloprotease 13 inhibitors or metallopro
                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A composition for decreasing and inhibiting the growth of chondrosarcoma cells, useful for treating chondrosarcomas and bone cancer, comprises a matrix metalloproteinase inhibitor.
neurodegenerative diseases, growth disorders, respiratory diseases, genitourinary diseases, gynecological disorders, nutritional disorders and infections. This sequence represents a polypeptide hydrolysed by a protease used in the scope of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This invention relates to a novel composition for inhibiting growth of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cell growth; pharmaceutical; cytostatic; metalloprotease 1 inhibitor; metalloprotease 2 inhibitor; metalloprotease 3 inhibitor; metalloprotease 4 inhibitor; metalloprotease 5 inhibitor; metalloprotease 6 inhibitor; metalloprotease 7 inhibitor; metalloprotease 8 inhibitor; metalloprotease 9 inhibitor; metalloprotease 10 inhibitor; metalloprotease 11 inhibitor; metalloprotease 12 inhibitor; metalloprotease 13 inhibitor; metalloprotease 13 inhibitor; metalloprotease 14 inhibitor; metalloprotease 15 inhibitor; metalloprotease 16 inhibitor; metalloprotease 17 inhibitor; metalloprotease 18 inhibitor; metalloprotease 19 inhibitor;
                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                         100.0%; Score 60; DB 9; Length 660; 100.0%; Pred. No. 0.068;
                                                                                                                                                                                                                                                                                                                                                                                                                        0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human matrix metalloproteinase-2 protein SegID14.
                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 1; SEQ ID NO 14; 50pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADV68478 standard; protein; 660 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-JUN-2003; 2003US-00601059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-JUN-2003; 2003US-00601059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                    Query Match 100.
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |||||||||||||||
109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2005-047374/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Yang S, Quirk S;
                                                                                                                                                                                                                               Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (YANG/) YANG S.
(QUIR/) QUIRK S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2004259802-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-DEC-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-MAR-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADV68478;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 51
ADV68478
ID ADV6
XX
ADV6
XX
ADV6
XX
DB Huma
XX
WW meta
XW me
8X333X8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
```

```
The invention discloses a composition comprising two or more isolated rat cor human polynucleotides or a polynucleotide which represents a fragment, cor human polynucleotides or a polynucleotide acid sequence. Also claimed are a vector comprising the novel polynucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a kit to perform the method, an array, a method for identifying an agent that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying a compound which regulates the expression of a polynucleotide sequence which is differentially expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the compound that regulates the activity of one or more of the compound that regulates the activity of one or more of the compound that regulates the activity of one or more of the compound useful in treating a cativity in an animal of one or more of the polypeptides given in the specification, a method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more or more or more or more or more or polypeptides or the compound that comply plan and a pharmaceutical composition comprising the one or more or 
                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury; chronic constriction injury; CCI; spared nerve injury; SNI; Chung.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
                                                                                                                                             Gaps
                                                                                                                                          ;
0
                                                                                             Length 660;
                                                                                                                                        Indels
                                                                                          100.0%; Score 60; DB 9; L
100.0%; Pred. No. 0.068;
ive 0; Mismatches 0;
development of a composition of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Costigan M;
                                                                                                                                                                                                                                                                                                                                                              ADE62857 standard; protein; 662 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rat Protein P33436, SEQ ID NO 8791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Befort K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page; 1017pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-AUG-2001; 2001US-0312147P.
01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-AUG-2002; 2002WO-US025765.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GEHO ) GEN HOSPITAL CORP.
(FARB ) BAYER AG.
                                                                                                              Best_Local Similarity 100
Matches 10; Conservative
                                                                                                                                                                                                                                        109 NYNFFPRKPK 118
                                                                                                                                                                                          1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Woolf C, D'urso D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2003-268312/26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rattus norvegicus.
                                             Sequence 660 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENBANK; P33436.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2003016475-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                              ADE62857;
                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                 RESULT
ខ្លង្គប្ល
                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                     셤
```

```
The invention discloses a composition comprising two or more isolated rat or human polymucleotides or a polymucleotide which represents a fragment, derivative or allelic variation of the nucleic acid sequence. Also claimed are a vector comprising the nucleic acid sequence. Also claimed are a vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a kit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polymucleotide sequence that increases or decreases the expression of the polymucleotide sequence the is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying a compound which regulates the expression of a polymucleotide sequence which is differentially expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the polymucleotides, a method for producing a pharmaceutical composition, a method for identifying a compound or small molecule that regulates the activity in an animal of one or more of the polympetides given in the specification, a method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more
                                                                                                                                                                                                         ö
therapy). The sequence presented is a rat protein (shown in Table 2 of the specification) which is differentially expressed during pain. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic form directly from WIPO at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury; chronic constriction injury; CCI; spared nerve injury; SNI; Chung.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                         ö
                                                                                                                                                              100.0%; Score 60; DB 7; Length 662; 100.0%; Pred. No. 0.068;
                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Costigan M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rat Protein P33436, SEQ ID NO 11945.
                                                                                                                                                                                                                                                                                                                                                                                         ADD46270 standard; protein; 662 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page; 1017pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Befort K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-AUG-2001; 2001US-0312147P.
01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           L4-AUG-2002; 2002WO-US025765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GEHO ) GEN HOSPITAL CORP. (FARB ) BAYER AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                       10; Conservative
                                                                                                                                                                                                                                                                                     109 NYNFFPRKPK 118
                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                               1 NYNFFPRKPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2003-268312/26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Woolf C, D'urso D,
                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rattus norvegicus
                                                                                                                        Sequence 662 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENBANK; P33436.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO2003016475-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                 ADD46270;
                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                  RESULT 53
                                                                                                                                                                                                                                                                                                                                                                        ADD46270
                                                                                                                                                                                                                                                                                                                                                                                         88888888
                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                   셤
```

```
ö
polypeptides or their antibodies. The polynucleotide or the compound that modulates its activity is useful for preparing a medicament for treating pain (e.g. spinal segmental nerve injury (Chung), chronic constriction injury (CCI) and spared nerve injury (SNI)) in an animal (e.g. gene therapy). The sequence presented is a rat protein (shown in Table 2 of the specification) which is differentially expressed during pain. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic form directly from WIPO at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This protein sequence comprises chicken matrix metalloproteinase-2 (chMMP -2). The invention relates to the discovery that angiogenesis is mediated by the specific vitronectin receptor alpha-v beta-3, and that inhibition of alpha-v beta-3 function inhibits angiogenesis. Claimed antagonists of alpha-v beta-3 include C-terminal fragments (see AAW41083-94) of human or chicken MMP-2. An MMP-2 fragment can be obtained by recombinant DNA methods, such as PCR amplification of the chMMP-2 coding region, cloning into e.g. pGBX-3X, and expression in B. coli as a fusion protein with glutathione-S-transferases. The antagonists can be used to inhibit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Packaging material containing polypeptide antagonist of alphav, beta3 integrin - used for inhibition of angiogenesis, and for treating tumours,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matrix metalloproteinase-2; MMP-2; chMMP-2; chicken; Angiogenesis; inhibitor; antagonist; integrin alpha-v beta-3; vitronectin receptor; rheumatoid arthritis; tumour; metastasis; diabetic retinopathy;
                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                        100.0%; Score 60; DB 7; Length 662; 100.0%; Pred. No. 0.068;
                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      macular degeneration; restenosis; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 163-167; 234pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1. .26
/label= Sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chicken matrix metalloproteinase-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW41111 standard; protein; 663 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      integrin - used for inhibition
inflammation, eye diseases etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             96US-0015869P.
96US-0018733P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97WO-US009158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                         Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (SCRI ) SCRIPPS RES INST
                                                                                                                                                                                                                                                                                                                                     109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                    1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Brooks P, Cheresh DA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1998-032334/03.
N-PSDB; AAV03995.
                                                                                                                                                                                         Sequence 662 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO9745137-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31-MAY-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31-MAY-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-DEC-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gallus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW41111;
                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Peptide
                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                            RESULT 54
                                                                                                                                                                                                                                                                                                                                                                                                                 AAW4111
       888888888888
                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
```

```
Sequence 663 AA;
                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     enzyme.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Brooks
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Region
                                                                                                  Matches
                                                                                                                                                                                                                                                                RESULT
                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present sequence represents the chicken matrix metalloprotease-2 (MMP c -2) protein sequence. Fragments of this protein (AAW41234-39) are able to act as alpha-v-beta-5 ancagoniates. Alpha-v-beta-5 as a vitronectin receptor Inhibitors of alpha-v-beta-5 can inhibit angiogenesis. The specification describes a novel labelled package that contains an contraction describes a novel labelled package that contains an contraction describes a novel labelled package that contains an contraction describes a novel labelled package that contains an contraction describes an alpha-v-beta-5 antagoniating polypeptide that binds to integrin alpha-v-beta-5 and includes a part of the C-c terminal domain of MMP. The antagoniate are used to inhibit angiogenesis in inflamed tissue, in solid tumours or metastases, and in a wide range c of ocular disorders (e.g. diabetic or other forms of retinopathy, neovascular glaucoma, or corneal transplants). They are particularly used to induce regression or to inhibit growth of tumours. The alpha-v-beta-5 antagonists can also be used to treat restenosis caused by migration of smooth muscle cells following angioplasty and to reduce blood supply to selected tissues. The antagonists strictularly inhibit neovascularisation where this is induced by cytokines, e.g. transforming growth factor a physic endocreen a physic endocrement or sepecially vascular endothelial growth
                                                                                                                                                                                                                                           ö
angiogenesis in inflammed tissue (for treatment of arthritis or rheumatoid arthritis), in solid tumours or metastases (particularly to induce regression or inhibit tumour growth), and in ocular disorders such as diabetic retinopathy and macular degeneration, as well as to treat restenosis (all claimed)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Packaging material containing polypeptide antagonist of alphav, beta5
integrin - used for inhibition of angiogenesis, and for treating tumours,
inflammation, eye diseases etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matrix metalloproteage-2; MMP-2; alpha-v-beta-5 antagonist; treatment; vitronectin receptor; inhibition; angiogenesis; integrin; tumour growth; restenosis; necovascularisation.
                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                           ö
                                                                                                                                                                                             100.0%; Score 60; DB 2; Length 663; 100.0%; Pred. No. 0.069;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chicken matrix metalloprotease-2 (MMP-2) protein sequence.
                                                                                                                                                                                                                                           0; Indels
                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Friedlander M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Fig 15A-B; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW41227 standard; protein; 663 AA.
                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97WO-US009099.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   96US-0015869P.
96US-0018733P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                   Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (SCRI ) SCRIPPS RES INST
                                                                                                                                                                                                                                                                                                                                 115
                                                                                                                                                                                                                                                                                      1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cheresh DA,
                                                                                                                                                                                                                                                                                                                   NYNFFPRKPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1998-041758/04.
                                                                                                                                               Sequence 663 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9745447-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31-MAY-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31-MAY-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-DEC-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gallus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Brooks P,
                                                                                                                                                                                                                                                                                                                                 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW41227;
                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 5

AMM 11227

DAWA 11227

DAWA 11227

AMM 1227

AMM 209-

DEFINE SERVICE SERVIC
         88888888
                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                        8
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                    vitrofectin receptor antagonist, neovascularisation; cancer; tumour; inflammation; rheumatoid arthritis; retina; diabetic retinopathy; restenosis; smooth muscle cell migration; angioplasty; antiangiogenic; cytostatic; antiinflammatory; antiarthritic; antiinheumatic; ophthalmological; antidiabetic; vasotropic; muscular-gen.; peptidomimetic; matrix metalloprotease 2; MMP-2; progelatinase; chicken;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'note= "This section is Asp-Ser-His-Phe in the chicken
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the mature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the mature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note= "Corresponds to residues 549-637 of the mature protein (see SEQ ID NO:28)"
                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                    Chicken matrix metalloprotease (MMP-2) version #1, SEQ ID NO:30.
                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note= "Corresponds to residues 516-637 of the protein (see SEQ ID NO:27)"
  Length 663;
                                                                                                                                                                                                                                                                                                                                                                                                                                 Angiogenesis inhibitor; integrin alpha-V beta-3 antagonist;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "Corresponds to residues 410-637 of protein (see SEQ ID NO:23)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note= "Corresponds to residues 445-518 of protein (see SEQ ID NO:25)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             445-637 of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               445-552 of
                                          Indels
                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Corresponds to residues (see also SEQ ID NO:24)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note= "Corresponds to residues
protein (see SEQ ID NO:26)"
100.0%; Score 60; DB 2; 100.0%; Pred. No. 0.069;
                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     / rabel = Hemopexin domain
/note = Corresponds to re-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MMP-2 shown in figure 7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1. .26
/label=_Signal_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27. .663
/label= Mature_MMP-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                ADT05976 standard; protein; 663 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-MAR-2003; 2003US-00402212.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-MAR-2004; 2004WO-US009321
                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . 578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .663
                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (SCRI ) SCRIPPS RES INST
                                                                                                                                    NYNFFPRKPK 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cheresh DA;
                                                                                         1 NYNFFPRKPK 10
                     Local Similarity
les 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO2004087057-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gallus gallus.
                                                                                                                                                                                                                                                                                                                                          30-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ЪС,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic.
                                                                                                                                    106
                                                                                                                                                                                                                                                                                               ADT05976;
```

```
14-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADT05976)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                     Region
                                 Region
                                                                   Domain
                                                                                                                                                                                                                            Region
                                                                                                                  Region
                                                                                                                                                                                         Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loca
Matches
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                 The invention relates to a method of inhibiting angiogenesis in a tissue by the administration of a composition comprising an organic peptidomimetic antagonist of integrin alpha-V beta-3 virtonectin receptor). The integrin alpha-V beta-3 antagonist and compositions containing it are useful for inhibiting angiogenesis in a variety of medical conditions. The antagonist may be used to induce the regression of solid tumours or solid tumour metastases; to inhibit the growth of solid tumours undergoing neovascularisation; to treat inflamed tissue in which neovascularisation in retinal tissue (e.g., in diabetic retinopathy); to treat restenosis in a tissue by inhibiting smooth muscle celuce the blood supply to a tissue required to support new growth of the tissue. The present sequence represents chicken matrix metalloprotease 2 (MMP-2, gelathiase) used in an example of the invention. Note: The present sequence differs between residues 202-205 compared to the present sequence residues 202-205 compared to the
                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           peptidomimetic; matrix metalloprotease 2; MMP-2; progelatinase; chicken;
                                Administration of composition comprising organic peptidomimetic alpha-v beta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Anglogenesis inhibitor; integrin alpha-V beta-3 antagonist; vitronectin receptor antagonist; neovascularisation; cancer; tumour; inflammation; rheumatod arthritis; retina; diabetic retinopathy; restenosis; smooth muscle cell migration; angioplasty; antianglogenic; cytostatic; antiinflammatory; antiarthritic; antiirheumatic; ophthalmological; antidiabetic; vasotropic; muscular-gen;
                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 60; DB 8; Length 663; 100.0%; Pred. No. 0.069; live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Chicken matrix metalloprotease (MMP-2) version #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MMP-2 shown in SEQ ID NO:30"
                                                                               Example 2; SEQ ID NO 30; 184pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'note= "Encoded by ICC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'note= "Encoded by CAT"

    .26
    /label= Signal_peptide

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /label= Mature_MMP-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADT05995 standard; protein; 663 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . 663
                                                                                                                                                                                                                                                                                                                                                                                10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                      106 NYNFFPRKPK 115
                                                                                                                                                                                                                                                                                                                                                                                                         NYNFFPRKPK 10
WPI; 2004-737508/72.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Misc-difference 204
                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
         N-PSDB; ADT05975
                                                                                                                                                                                                                                                                                                                                  Sequence 663 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gallus gallus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-DEC-2004
                                                                                                                                                                                                                                                                                                           (ADT05995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADT05995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Protein
                                                                                                                                                                                                                                                                                                                                                                       Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                            셤
```

```
The invention relates to a method of inhibiting angiogenesis in a tissue by the administration of a composition comprising an organic by the administration of a composition comprising an organic peptidomimetic antagonist of integrin alpha-V beta-3 aviatomectin receptor). The integrin alpha-V beta-3 antagonist and compositions containing it are useful for inhibiting angiogenesis in a variety of medical conditions. The antagonist may be used to induce the regression of solid tumnours or solid tumnour metastases; to inhibit the growth of solid tumnours undergoing neovascularisation; to treat inflamed tissue in which neovascularisation is occurring (e.g., in rheumatoid arthritis); to treat neovascularisation in retinal tissue (e.g., in diabetic retinopathy; to treat restenosis in a tissue by inhibiting smooth muscle cell migration (such as that which occurs following angioplasty); and to reduce the blood supply to a tissue required to support new growth of the cissue. The present sequence represents chicken matrix metalloprotease 2 (MMP-2, gelatinase) used in an example of the invention. Note: The present sequence differs between residues 202-205 compared to the sequence listing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Administration of composition comprising organic peptidomimetic alpha-vbeta-3 antagonist to e.g. inhibit angiogenesis (inflamed tissue angiogenesis, retinal angiogenesis and tumor angiogenesis) in a tissue.
                                                                                                                                     /note= "Corresponds to residues 410-637 of the mature protein (see SEQ ID NO:23)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "Corresponds to residues 549-637 of the mature protein (see SEQ ID NO:28)"
                                                                                                                                                                                                                                                                                                                                                                                                     /note= "Corresponds to residues 445-552 of the mature
protein (see SEQ ID NO:26)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note= "Corresponds to residues 445-518 of the mature
protein (see SEQ ID NO:25)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note= "Corresponds to residues 516-637 of the mature protein (see SEQ ID NO:27)"
                                                                                                                                                                                                                                                                                          445-637 of the mature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 60; DB 8; Length 663; 100.0%; Pred. No. 0.069;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                                                                                                                                                                      /note = Corresponds to residues
protein (see also SEQ ID NO:24)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                              471. .663
/label = Hemopexin_domain
'note= "Encoded by TTT"
                                                                    "Encoded by GAT"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 2; Fig 7A-C; 184pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-MAR-2003; 2003US-00402212.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-MAR-2004; 2004WO-US009321
                                                                                                                                                                                                                                                                                                                                                               .578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (SCRI ) SCRIPPS RES INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               106 NYNFFPRKPK 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Brooks PC, Cheresh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2004-737508/72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; ADT05994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 663 AA;
                                  Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO2004087057-A2
```

```
biological activity; genetic engineering; hybridisation probe; oligomer;
primer; chromosome mapping; gene mapping; recombinant protein production;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New polynucleotides, useful as hybridization probes, oligomers or primers, for chromosome or gene mapping, for the recombinant production of proteins, and for generating antisense DNA or RNA.
                                                                                                                                                                                                                                                                                   Human contig polypeptide sequence SEQ ID NO:2921.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        χ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 3; SEQ ID NO 2921; 571pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ψa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Weng G,
                                                                    ADF60554 standard; protein; 708 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         39-AUG-2002; 2002WO-US025485.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-AUG-2001; 2001US-0311261P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tang YT, Yang Y, Wang Z,
                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2003-876918/81.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB; ADF60102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 708 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO2003080795-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                           12-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-OCT-2003.
                                                                                                                                      ADF60554;
                                                                                                                                                                                                                                                                                                                                                                                                                             numan.
ADPENSEUT 58

AD
```

The present invention describes isolated polynuclectide sequences (I), which encode polypeptides (II) with biological activity. Also described:
(I) a vector comprising (I); (2) an expression vector comprising (I); (3)
a sociated with a regulatory sequence that modulates expression of (I) in the host cell; (4) a polypeptide (II) encoded by (I); (5) a composition comprising the polypeptide of (4) and a carrier; (6) an antibody directed against the polypeptide of (4); (7) detecting (I) or the polypeptide of (3); and (10) a collection of polymentiang the polypeptide of (4); and (10) a collection of polymuclectides comprising at least one of the polymuclectide sequences (I). The polynuclectides (I) can be used as hybridisation probes, oligomers or primers, for chromosome or gene mapping, for the recombinant production of proteins, and for generating antisense DNA or RNA. The present sequence represent a human contig polypeptide sequence, which is used in an example from the present invention.

```
100.0%; Score 60; DB 7; Length 708; 100.0%; Pred. No. 0.073; tive 0; Mismatches 0; Indels
                    Best Local Similarity 100 Matches 10; Conservative
                                                                                1 NYNFFPRKPK 10
    Query Match
                                                                                ò
```

ö

Gaps

ó

157

용

AEA20970 standard; protein; 708 AA. AEA20970; RESULT S AEA20970 ID AEA XX AC AEA XX DT 11-

11-AUG-2005 (first entry)

Novel human polypeptide SEQ ID NO 1664

vulnerary; CNS-gen.; gene therapy; diagnostic; forensic; mapping; DNA purification; protein purification; osteoarthritis; antiarthritic; osteopathic; musculoskeletal disease; osteopathic; musculoskeletal disease; osteopathis; endocrine disease; periodontal disease; antiinflammatory; mouth disease; burns; injury; peripheral neuropathy; Alzheimers disease; neuroprotective; nootropic; degeneration; parkingons disease; antiparkinsonian; neurological disease; cerebrovascular ischemia; cerebroprotective; vasotropic; cardiovascular disease; autommune disease; immunosuppressive; immune disease; immunosuppressive; cytostatic; neoplasm.

Homo sapiens

WO2005049806-A2 

02-JUN-2005

11-MAR-2004; 2004WO-US007412.

L4-MAR-2003; 2003US-00389559

(NUVE-) NUVELO INC.

Zhou P, Ma Y; Goodrich R, Chen R; Ren F, Wang D, Zhang J, Zhao Q, Weng G, Boyle B; Tang TY, Wang J, Wang ZW, Ghosh M, Xue A, Asundi V, Wehrman T,

WPI; 2005-417730/42.

New polynucleotide encoding a polypeptide with biological activity, useful for treating a disease or disorder, e.g. osteoarthritis, burns, CNS and peripheral disease, stroke, autoimmune disorders, viral infection, or cancer.

Example 3; SEQ ID NO 1664; 500pp; English.

The invention describes a new isolated polynucleotide (I) encoding a polypeptide with biological activity comprising: a nucleotide sequence of SRQ INIJY defined); a nucleotide sequence that hybridizes to the sequence of (I) under stringent hybridization conditions; or a nucleotide sequence having greater than 99% sequence identity with the sequence of (I). Also described are: a(I) (expression) vector comprising (I); a host cell genetically engineered to comprise (II); a sequence of SRQ ID NOS: 568-1134 (fully defined), where the polypeptide of 19, polynucleotide hybridizing under stringent conditions with any one of SRQ ID NOS: 1-567, a composition comprising the polypeptide of (3); a method of polynucleotide of (3); a method of producing the polypeptide of (3); a method of producing the polypeptide of (3); and a collection of polynucleotides, where the collection comprising any of the sequences of SRQ ID NOS: 1-567. (I) is a polynucleotide comprising any of the sequences of SRQ ID NOS: 1-567 encoding a polypeptide with biological activity, which comprises any of the amino acid sequence of SRQ ID NOS: 1-567 encoding a polypeptide with biological activity, which comprises any of the amino acid sequence of SRQ ID NOS: 1-567 encoding a polypeptide of SRQ

Sequence 708 AA;

```
The invention relates to isolated polynucleotide (I) and polypeptide (II) sequences. (I) is useful as hybridisation probes, polymerase chain reaction (PGR) primers, oligomers, and for chromosome and gene mapping, and in recombinant production of (II). The polynucleotides are also used in diagnostics as expressed sequence tags for identifying expressed genes. (I) is useful in gene therapy techniques to restore normal cativity of (II) or to treat disease states involving (II). (II) is useful for generating antibodies against it, detecting or quantitating a polypeptide in tissue, as molecular weight markers and as a food of sites expressing (II). (I) and its binding partners are useful in medical imaging of sites expressing (II). (I) and (II) are useful for treating disorders involving aberrant protein expression or biological activity. The polypeptide and polynucleotide sequences have applications in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits to assess biodiversity and to produce other types of data and products dependent on DNA and amino acid sequences. ABG00010-ABG30377 represent novel human diagnostic amino acid sequences of the invention. Note: The sequence data for this electronic format directly from WIPO at the printed specification, but was obtained in electronic format directly from WIPO at
                                                                               ö
                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess biodiversity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; chromosome mapping; gene mapping; gene therapy; forensic; food supplement; medical imaging; diagnostic; genetic disorder.
                                                                               ö
Query Match 100.0%; Score 60; DB 9; Length 708; Best Local Similarity 100.0%; Pred. No. 0.073; Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 20; SEQ ID NO 54358; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel human diagnostic protein #23990.
                                                                                                                                                                                                                                                                                                                                                                                                       ABG23999 standard; protein; 1330 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tang YT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31-MAR-2000; 2000US-00540217.
23-AUG-2000; 2000US-00649167.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-MAR-2001; 2001WO-US008631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                          1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Drmanac RT, Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-639362/73.
N-PSDB; AAS88186.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1330 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200175067-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-OCT-2001
                                                                                                                                                                                                                    157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABG23999;
                                                                                                                                                                                                                                                                                                                               RESULT 60
                                                                                                                                                                                                                                                                                                                                                                 ABG23999

110

ABG3

ABG33999

ABG3

ABG33999

ABG3399

ABG33999

ABG3399

ABG399

ABG39
                                                                                                                                                8
                                                                                                                                                                                                                 셤
```

100.0%; Score 60; DB 4; Length 1330; 100.0%; Pred. No. 0.14;

Query Match Best Local Similarity

Search completed: February 21, 2006, 18:13:22 Job time : 102.386 secs

	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 0
Cop	Copyright (c) 1993 - 2006 Biocceleration Ltd.	30
		31
		32
OM protein - protein &	OM protein - protein search, using sw model	33
		34
Run on: Februa	February 21, 2006, 08:00:29; Search time 22.8947 Seconds	35
	(without alignments)	36
	36.111 Million cell updates/sec	37
		38
	US-10-601-059-13	39
Perfect score: 60		40
Sequence: 1 NYNE	1 NYNFFPRKFK 10	41
		42
Scoring table: BLOSUM62	M62	43
Gapop	Gapop 10.0 , Gapext 0.5	44
		45
Searched: 57206(	572060 segs, 82675679 residues	ł
Total number of hits	Total number of hits satisfying chosen parameters: 572060	

1 seued Patents AA:*
1: /cgn2_6/ptodata/1/iaa/5_COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/6_COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/H_COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/RR_COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/RR_COMB.pep:*

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Appli Appli Appli Appli Sequence 13, Description Sequence Seq Sequence Seq US-10-153-185-13 US-10-153-185-11 US-10-153-185-12 US-10-153-185-12 US-08-144-489-17 US-09-689-730-17 US-09-521-220-18 US-09-331-104-19 US-09-331-104-19 US-09-349-16-6512 US-09-349-16-6512 US-09-349-16-6512 US-08-30-30-30-30 US-08-30-30-30-30-1 US-08-30-30-30-1 US-08-30-30-30-1 US-08-313-999C-4639 US-08-313-999C-4639 US-09-538-092-579 US-08-22-511-2 US-08-22-511-2 SUMMARIES Length Query Match 100.0 100.0 100.0 100.0 100.0 100.0 100.0 Score Result No.

US-09-328-352-4176

Sequence 17001, A Sequence 1572, Ap Sequence 3731, Ap	Sequence 13, Appl Sequence 26413, A Sequence 61, Appl	Sequence 82, Appl Sequence 67, Appl Sequence 67, Appl	10, 7 8, A	Sequence 34532, A Sequence 49749, A Sequence 31488, A	Sequence 45481, A Sequence 22, Appl
US-09-248-796A-17001 US-09-710-279-1572 US-09-134-001C-3731	US-09-701-868-13 US-09-252-991A-26413 US-09-323-998E-61	US-101-127-15 US-09-198-452A-82 US-09-438-185A-6183 TS-09-643-681A-6183	US-08-379-556A-10 US-09-454-034-8 US-09-489-039A-10505	US-09-270-767-34532 US-09-270-767-49749 US-09-252-991A-31488	US-09-270-767-45481 US-09-788-657-22
000	0000	1000	7 7 7 7	0 0 0	0 0
105 198 248	307	590	335 343 357	536 536 669	745 1360
61.7 61.7 61.7	61.7	61.7	0000	0.00 60.00 60.00	60.0 60.0
37 37 37	37 37	766	9 9 9 9	36 36 36	36 36
3 5 8 3 0 8	332	1 W W 1	, w w 4,	4 4 4 1 2 2 5	44 45 5

## ALIGNMENTS

RESULT 1 US-10-153-185-13 US-10-153-185-13 Sequence 13, Application US/10153185 Fatent No. 6906036 GENERAL INFORMATION: FAPLICANT: Outlik, Schail TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds TITLE OF INVENTION: A034US1 CURRENT FILING DATE: 2002-08-13 FRIOR APPLICATION NUMBER: US/10/153,185 CURRENT FILING DATE: 2001-12-21 FRIOR PILING DATE: 2001-12-21 FRIOR PILING DATE: 2001-12-21 FRIOR PILING DATE: 2001-12-21 FRIOR FILING DATE: 2001-12-21 FRIOR FILING DATE: 2001-12-21 FRIOR FILING DATE: 2001-08-16 FRIOR FILING DATE: 2001-12-21	Query Match 100.0%; Score 60; DB 2; Length 10; Best Local Similarity 100.0%; Pred. No. 0.00035; Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps	Cy 1 NYNFFPRKFK 10            Db 1 NYNFFPRKFK 10	RESULT 2 US-10-153-185-11 ; Sequence 11, Application US/10153185 ; Patent No. 6506036 ; GENERAL INFORMATION:     APPLICANT: Ouirk, Stephen ; APPLICANT: Malik, Sohail ; TITLE OF INVENTION: AARLI-Aging and Wound Healing Compounds ; FILE REFERENCE: 1443.034051 ; CURRENT APPLICATION NUMBER: US/10/153,185 ; CURRENT FILING DATE: 2002-08-13 ; PRIOR APPLICATION NUMBER: US 60/312,726 ; PRIOR APPLICATION NUMBER: US 60/312,726 ; RING DATE: 2001-12-21 ; PRIOR APPLICATION NUMBER: US 60/312,726 ; RUWBER OF SEQ ID NOS: 20 ; SOPTWARE: FastSEQ for Windows Version 4.0
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

ô

```
80 NYNFFPRKPK 89
1 NYNFFPRKPK 10
                                  33 NYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80 NYNFFPRKPK 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 6
US-09-689-730-17
                                                                                                                  US-08-448-489-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
  ઠે
                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                     RESULT 3
US-10-153-185-15
i Sequence 15, Application US/10153185
i Sequence 15, Application US/10153185
i Releant No. 6906036
i GENERAL INFORMATION:
i APPLICANT: Quirk, Schail
i TITLE OF INVENTION: ALTI-Aging and Wound Healing Compounds
FILE REPERENCE: 1443.034US1
i CURRENT APPLICATION NUMBER: US/10/153,185
i CURRENT FILING DATE: 2002-08-13
i PRIOR APPLICATION NUMBER: US 60/312,376
i PRIOR APPLICATION NUMBER: US 60/312,726
i PRIOR FILING DATE: 2001-08-16
i NUMBER OF SEQ ID NOS: 20
i SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-13-185-185-5

US-20-21-185-185-5

Patent No. 6906036

GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: Quirk, Stephen

TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds

TITLE REFERENCE: 1443.034051

CURRENT APPLICATION NUMBER: US/10/153,185

CURRENT PILING DATE: 2002-08-13

PRIOR APPLICATION NUMBER: US 60/312,726

PRIOR PILING DATE: 2001-12-21

PRIOR APPLICATION NUMBER: US 60/312,726

NUMBER OF SEQ ID NOS: 20

SOFTWARE: FastSEQ for Windows Version 4.0

SOFTWARE: FastSEQ for Windows Version 4.0

TYPE: PRI

TYPE: PRI

CORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.0%; Score 60; DB 2; Length 44; Best Local Similarity 100.0%; Pred. No. 0.0015; Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                              100.0%; Score 60; DB 2; Length 19; 100.0%; Pred. No. 0.00067;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 60; DB 2; Length 43; 100.0%; Pred. No. 0.0015; tive 0; Mismatches 0; Indels
                                                                                                                                       0; Indels
                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                  10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     33 NYNFFPRKPK 42
                                                                                                                                                                           1 NYNFFPRKPK 10
                                                                                                                                                                                                |||||||||||
10 NYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 NYNFFPRKPK 10
                                  ; ORGANISM: Homo sapiens
US-10-153-185-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Homo sapiens
                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-153-185-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-153-185-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-153-185-2
LENGTH: 19
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 15
LENGTH: 43
                                                                                                                                       Matches
                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
Sequence 17. Application US/0968930

Patent NO. 6825024

GENERAL INFORMATION:
APPLICANT: SEIKI, Motcharu
APPLICANT: SHINGAWA, Akira
TITLE OF INVENTION: NOVEL METALLOPROTEINASE AND ENCODING DNA THEREFOR
FILE REFERENCE: 55-290P
CURRENT APPLICATION NUMBER: US/09/689,730
CURRENT APPLICATION NUMBER: US/08/448,489
PRIOR APPLICATION NUMBER: US/08/448,489
PRIOR FILING DATE: 1995-06-07
NUMBER OF SEQ ID NOS: 19
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 17
LENGTH: 631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; OTHER INFORMATION: Description of Unknown Organism: Known Member of ; OTHER INFORMATION: Matrix Metalloproteinase Family US-09-689-730-17
                                                                                                                                                                                                                                                                                                                                                            ; OTHER INFORMATION: Description of Unknown Organism: Known Member of ; OTHER INFORMATION: Matrix Metalloproteinase Family US-08-448-489-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 100.0%; Score 60; DB 2; Length 631; Best Local Similarity 100.0%; Pred. No. 0.022; Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 100.0%; Score 60; DB 2; Length 631; Best Local Similarity 100.0%; Pred. No. 0.022; Matches 10; Conservative 0; Mismatches 0; Indels
```

RESULT 7 US-08-704-711A-18

ö

Gaps

ö

```
21-OCT-1994
17-MAR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION: TELEPHONE: (202)672-5300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 19, Application US/09391104
Patent No. 6399371
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 660 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: (202)672-5399
TELEX: 904136
INFORMATION FOR SEQ ID NO: 18:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; ORGANISM: Homo sapiens
US-09-391-104-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JS-09-391-104-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AL INFORMATION:
APPLICANT: WILL, HOTSE
TITLE OF INVENTION: DNA SEQUENCES FOR MATRIX
METALLOPROTEASES, THEIR PRODUCTION AND USE
Sequence 18, Application US/08704711A
Patent No. 6114159
GENERAL INFORMATION:
APPLICANT: WILL, HOTST
TITLE OF INVENTION: DNA SEQUENCES FOR MATRIX
TITLE OF INVENTION: DNA SEQUENCES, THEIR PRODUCTION AND USE
NUMBER OF SEQUENCES: 22
CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner
STREET: 3000 K Street, N.W., Suite 500
GITY: Rashington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 60; DB 2; Length 660; 100.0%; Pred. No. 0.023; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                 COUNTRY: USA

ZIP: 2000-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/Ms-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/704,711A
FILING DATE: 20-NOV-1996
CLASSIFICATION DATA:
APPLICATION NUMBER: WP PCT/DE95/00357
FILING DATE: 17-MAR-1995
RIGHT DATE: 21-OCT-1994
RROR APPLICATION NUMBER: DE 4438838.1
FILING DATE: 21-OCT-1994
RROR APPLICATION NUMBER: DE 4409663.1
FILING DATE: 17-MAR-1994
ATYONEY/AGENT INPORMATION:
NAMB: GRANADOS, PATICIA D.
REGISTRATION NUMBER: 33,683
REBERENCE/POCKET NUMBER: 26083/124
TELEPHONE: (202)672-5399
TELEFRAN: (202)672-5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 22
CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner
STREET: 3000 K Street, N.W., Suite 500
CITY: Washington
STATE: D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 18, Application US/09521220; Patent No. 6399348; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 660 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEX: 904136
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear
                                                                                                                                                                                                                                                    STATE: D.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-704-711A-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 8
US-09-521-220-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Abbott Laboratories
APPLICANT: Falduto, Michael T.
APPLICANT: Falduto, Michael T.
APPLICANT: Morgan, Scott R.
APPLICANT: Morgan, Douglas W.
TITLE OF INVENTION: PROTEINS ENCODED THEREFROM AND METHODS
TITLE OF INVENTION: OP USING SAME
TITLE OF INVENTION: OP USING SAME
FILE REPERENCE: 6073.US.Pl
CURRENT APPLICATION NUMBER: US/09/391,104
CURRENT PILING DATE: 1999-09-07
PRIOR FILING DATE: 1997-03-11
NUMBER OF SEQ ID NOS: 35
SOFTWARE: FastSEQ for Windows Version 3.0
LENGTH: 660
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           / Match 100.0%; Score 60; DB 2; Length 660; Local Similarity 100.0%; Pred. No. 0.023; les 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 660;
ZIP: 2000-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: FLORDY disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 60; DB 2;
Pred. No. 0.023;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: GRANADOS, Patricia D.
REGISTRATION NUMBER: 33, 683
REFERENCE/DOCKET NUMBER: 26083/124
                                                                                                                                                         CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/521,220
FILING DATE: 08-Mar-2000
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                           PILING DATE: «Unknown»
APPLICATION NUMBER: DE 4438838.1
PILING DATE: 21-0CT-1994
APPLICATION NUMBER: DE 4409663.1
FILING DATE: 17-MAR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; SEQUENCE DESCRIPTION: SEQ ID NO: 18:
US-09-521-220-18
                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA: APPLICATION NUMBER: 08/704,711
```

ద

```
; Sequence 7937, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; CURRENT PILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; RRIOR APPLICATION NUMBER: 60/231,768
; PRIOR PILING DATE: 2000-10-03
; PRIOR PILING DATE: 2000-10-03
; PRIOR FILING DATE: 2000-09-08
; WUNBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSEQ for Windows Version 4.0
; LENGTH: 60/231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             David A.
METHODS AND COMPOSITIONS USEFUL FOR INHIBITION OF
ANGIOGENESIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Malik, Stephen
APPLICANT: Malik, Schail
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
FILE REFERENCE: 1443.034US1
CURRENT APPLICATION NUMBER: US/10/153,185
CURRENT FILING DATE: 2002-08-13
PRIOR PPLICATION NUMBER: US 60/312,726
PRIOR PPLICATION NUMBER: US 60/312,726
PRIOR FILING DATE: 2001-08-16
PRIOR FILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 20
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 14
LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 60; DB 2; Length 660; 100.0%; Pred. No. 0.023;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 60; DB 2; Length 660; 100.0%; Pred. No. 0.023;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 30, Application US/09194468A Patent No. 6500924
GENERRAL INFORMATION:
APPLICANT: Brooks, Peter APPLICANT: Cheresh, David A.
TITLE OF INVENTION: METFODS AND COME TITLE OF INVENTION: ANGIOGENESIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 14, Application US/10153185 Patent No. 6906036 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 100.
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 100.
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ||||||||||
109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Homo sapiens
US-10-153-185-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-949-016-7937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-194-468A-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-153-185-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    us-uy-ys-uub-bblz
gequence 6512, Application US/09949016
Reguence 6512, Application US/09949016
Reguence 6512, Application US/09949016
Reguence 6512, Application US/09949016
REGUENCE INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/21,758
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 6512
LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                      ö
                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
APPLICANT: Mutter, George
APPLICANT: Mutter, George
APPLICANT: Matter, George
TILE NEPLICANT: Baak, Jan
TILE OF INVENTION: Prognostic Classification of Breast Cancer;
FILE REFERENCE: B0801/7224(JRV)
CURRENT APPLICATION NUMBER: US/09/917,254
CURRENT FILING DATE: 2001-07-27
PRIOR APPLICATION NUMBER: US 60/222,093
PRIOR FILING DATE: 2000-07-28
NUMBER OF SEQ ID NOS: 102
SOFTWARE: Patentin version 3.0
SEQ ID NO 89
LENGTH: 660
                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 60; DB 2; Length 660; 100.0%; Pred. No. 0.023; .ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 60; DB 2; Length 660; 100.0%; Pred. No. 0.023;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                      0; Indels
                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches
                                                                                                                                                                                                                                 Sequence 89, Application US/09917254
Patent No. 6703204
                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 100.
Best Local Similarity 100.
Matches 10; Conservative
                      10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ||||||||||
109 NYNFFPRKPK 118
                                                                                                                109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 NYNFFPRKPK 10
                                                                    1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Homo Sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Human
US-09-949-016-6512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 11
US-09-949-016-6512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 12
US-09-949-016-7937
                                                                                                                                                                                     RESULT 10
US-09-917-254-89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-917-254-89
                      Matches
```

a

ò

ö

ö

셤

```
Search completed: February 21, 2006, 08:02:41 Job time: 23.8947 secs
                                   g
               ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                     o;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 15
US-08-303-270-6
; Sequence 6, Application US/08303270
; Patent No. 5646027
; GENERAL INFORMATION:
; APPLICANT: Ye, Qi-Zhuang
; APPLICANT: Johnson, Linda L.
; APPLICANT: Hupe, Donald J.
; TITLE OF INVENTION: Process for the Production of
; TITLE OF INVENTION: Gelatinase Catalytic Domain Protein
NUMBER OF SEQUENCES: 10
CORRESPONDENCES 10
CORRESPONDENCE ADDRESS:
ADDRESSEE: Warner-Lambert Company
STREET: 2800 Plymouth Rd.
CITY: Ann Arbor
CONTY: MI
                                                                                                                                                                                                                                                                                                                                                                     Query Match
100.0%; Score 60; DB 2; Length 663;
Best Local Similarity 100.0%; Pred. No. 0.023;
Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 91.7%; Score 55; DB 1; Length 30; Best Local Similarity 90.0%; Pred. No. 0.0076; Matches 9; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 48105
COMPUTER READABLE FORM:
MEDIUM TYER: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/303,270
CURRENT APPLICATION NUMBER: US/09/194,468A
CURRENT FILING DATE: 1999-03-23
FRIOR APPLICATION NUMBER: 60/018,773
PRIOR PILING DATE: 1996-05-31
PRIOR PILING DATE: 1996-05-31
PRIOR PILING DATE: 1996-05-31
PRIOR PILING DATE: 1996-05-31
PRIOR PILING DATE: 1997-05-30
NUMBER OF SEQ ID NOS: 45
SEQ ID NO 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICALLUME DATE:
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Tinney, Francis J.
REGISTRATION NUBER: 33,069
REFERENCE/DOCKET NUMBER: 5120-FJT
TELECOMMUNICATION INFORMATION:
TELEPHONE: 313 996-7295
"TELEPHONE: 313 996-7295
"TELEPHONE: 313 996-7295
"TELEPHONE: 313 996-7295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPAX: 313 996-1553
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 30 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                TYPE: PRT; ORGANISM: Gallus gallus
US-09-194-468A-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JS-08-303-270-6
```

This Page Blank (uspto)

US-11-031-488-2 US-09-864-761-37964 US-10-852-707-56 US-10-450-763-54360 US-10-287-436A-489 US-10-287-436A-1185 US-11-021-951-131 US-09-391-104-19 US-09-801-196-35 US-09-918-715-208 US-10-901-417-25 US-10-979-159-208 US-10-219-329-14 US-10-301-822-125 US-10-032-376A-14 US-10-872-198-131 US-10-335-207-14 US-10-480-621-1 US-10-153-185-14 US-10-219-561-14 US-10-131-985-25 US-10-447-3 (without alignments) 54.375 Million cell updates/sec GenCore version 5.1.7 Copyright (c) 1993 - 2006 Biocceleration Ltd. 22 OM protein - protein search, using sw model BLOSUM62 Gapop 10.0 , Gapext 0.5

Applanting

Sequence Seq

Sequence Sequence Sequence

Sequence

## ALIGNMENTS

Sequence Sequence Sequence

Sequence

Sequence

Sequence Sequence Sequence Sequence Sequence Sequence Sequence

Sequence 13, Application US/10219329
Sequence 13, Application US/10219329
Publication No. US2030096757A1
GENERAL INPORMATION:
APPLICANT: Quirk, Stephen
APPLICANT: Quirk, Stephen
TITLE OF INVENTION: Anti-cancer and Wound Healing Compounds
FILE REFERENCE: 1443.035W01
CURRENT APPLICATION NUMBER: US/10/219,329
CURRENT FILING DATE: 2002-08-15
PRIOR APPLICATION NUMBER: US 60/312,376
PRIOR APPLICATION NUMBER: US 60/312,726
PRIOR APPLICATION NUMBER: US 60/312,726
NUMBER OF SEQ ID NOS: 23
SOFTWARRE: PSECSEQ for Windows Version 4.0
LENGTH: 10 ORGANISM: Homo sapiens US-10-219-329-13 TYPE: PRT

Score 60; DB 4; Length 10; Pred. No. 0.0037; Mismatches 0; Indels 0; Mismatches 100.0%; Query Match 100. Best Local Similarity 100. Matches 10; Conservative

ö

Gaps

ö

1 NYNFFPRKPK 10 NYNFFPRKPK 10 н

8 g

Sequence Sequence Sequence

Sequence

Sequence

100.0 100.0 US-10-153-185-13

Appli Appli Appli Appli Appli Appli

Sequence 13, Application US/10153185
Publication No. US20030148959A1
GENERAL INFORMATION:
APPLICANT: Quirk, Schehen
APPLICANT: Mailk, Scheil
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds

February 21, 2006, 18:13:46; Search time 76.8421 Seconds

Run on:

US-10-601-059-13 1 NYNFFPRKPK 10 Perfect score:

Scoring table: Sequence:

1867569 segs, 417829326 residues Searched: Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 100% Maximum Match 100% Listing first 500 summaries

Published Applications AA Main:*

(cgn2_6/ptodata/1/pubpaa/USO7_PUBCCMB.pep:*

cgn2_6/ptodata/1/pubpaa/USO8_PUBCCMB.pep:*

cgn2_6/ptodata/1/pubpaa/USO8_PUBCCMB.pep:*

cgn2_6/ptodata/1/pubpaa/USO8_PUBCCMB.pep:*

cgn2_6/ptodata/1/pubpaa/USO8_pubCCMB.pep:*

cgn2_6/ptodata/1/pubpaa/USO8_pUBCCMB.pep:*

cgn2_6/ptodata/1/pubpaa/USIO8_PUBCCMB.pep:* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description Sequence Sequence Sequence Sequence Sequence Sequence Seguence B Query Match Length 100.0 100.0 100.0 100.0 Score Š

Sequence US-10-219-329-13 US-10-153-185-13 US-10-312-561-13 US-10-32-376A-13 US-10-312-207-13 US-10-011-488-13 US-10-219-561-11 US-10-219-561-11 US-10-313-329-11 US-10-313-376A-11 US-10-313-207-11 US-10-119-329-15 US-10-119-329-15 US-10-119-329-15 US-10-313-207-15 US-10-313-207-15 US-10-313-207-15 US-10-313-207-15 US-10-313-207-15 US-10-313-207-15 US-10-219-329-2 US-10-219-329-2 US-10-219-329-2 US-10-219-329-2 US-10-219-329-2 US-10-219-329-2 US-10-219-329-2 US-10-219-329-2 100. 

```
1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                             1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 NYNFFPRKPK 10
                         ; LENGTH: 10
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-032-376A-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-335-207-13
       SEQ ID NO 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loca
Matches
                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Quirk, Steven
TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
FILE REPRENCE: 1443.008USI.
CURRENT APPLICATION NUMBER: US/10/032,376A
CURRENT FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: 60/312,726
PRIOR PILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 20
SOFTWARE: FASESEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Quirk, Stephen
APPLICANT: Quirk, Schail
APPLICANT: Malik, Sohail
APPLICANT: Malik, Sohail
APPLICANT: Malik, Sohail
APPLICANT: Malik, Sohail
APPLICANT: Willanueva, Julie M.
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
FILE REFERENCE: 1443.008US2
CURRENT APPLICATION NUMBER: US/10/219,561
CURRENT FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: US 10/153,185
PRIOR FILING DATE: 2001-05-21
PRIOR PELING DATE: 2001-06-16
PRIOR APPLICATION NUMBER: US 60/312,726
PRIOR FILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 21
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 13
                                                                                                                                                                                                                                                                                                                                             100.0%; Score 60; DB 4; Length 10; 100.0%; Pred. No. 0.0037; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 100.0%; Score 60; DB 4; Length 10; Best Local Similarity 100.0%; Pred. No. 0.0037; Matches 10; Conservative 0; Mismatches 0; Indels
FILE REFERENCE: 1443.034US1
CURRENT APPLICATION NUMBER: US/10/153,185
CURRENT FILING DATE: 2002-08-13
PRIOR APPLICATION NUMBER: US 10/032,376
PRIOR FILING DATE: 2001-12-21
PRIOR FILING DATE: 2001-12-21
PRIOR FILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 20
SOFTWARE: PSELSEQ for Windows Version 4.0
SEQ ID NO 13
LENGTH: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; Sequence 13, Application US/10032376A; Publication No. US20040127420A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 13, Application US/10219561; Publication No. US20030166567A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                    Luc..
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens
US-10-153-185-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; ORGANISM: Homo sapiens
US-10-219-561-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-032-376A-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 3
US-10-219-561-13
                                                                                                                                                                                                                                                      TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                               ..
0
Query Match
100.0%; Score 60; DB 4; Length 10;
Best Local Similarity 100.0%; Pred. No. 0.0037;
Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 100.0%; Score 60; DB 4; Length 10; Best Local Similarity 100.0%; Pred. No. 0.0037; Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-601-059-13

i Sequence 13, Application US/10601059
i Publication No. US20040259802A1
general INFORMATION:
APPLICANT: Yang, Shu-Ping
APPLICANT: Mimberly-Clark Worldwide, Inc.
TITLE OF INVENTION: ALL:-Chrondrosarcoma Compounds
FILE REFERENCE: 1443.064US1
CURRENT PILING DATE: 2003-06-20
FRIOR APPLICATION NUMBER: US/10/601,059
CURRENT PILING DATE: 2002-08-15
FRIOR APPLICATION NUMBER: US 10/1335,207
FRIOR FILING DATE: 2002-08-15
FRIOR APPLICATION NUMBER: US 10/153,185
FRIOR PILING DATE: 2002-08-15
FRIOR APPLICATION NUMBER: US 10/153,185
FRIOR APPLICATION NUMBER: US 10/153,185
FRIOR FILING DATE: 2001-08-16
FRIOR FILING DATE: 2001-08-16
FRIOR FILING DATE: 2001-12-21
FRIOR FILING DATE: 2001-12-21
FRIOR FILING DATE: 2001-08-16
FRIOR FILING DATE: 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-335-207-13

Sequence 13, Application US/10335207

Sequence 13, Application US/10335207

Publication No. US20040127421A1

GENERAL INFORMATION:

APPLICANT: Walik, Sohail

APPLICANT: Quirk, Stephen

TITLE OF INVENTION: Method to Increase Fibronectin

FILE REFERENCE: 1443.0470S1

CURRENT FILING DATE: 2002-12-30

NUMBER OF SEQ ID NOS: 21

SOFTWARE: FastSEQ for Windows Version 4.0

LENGTH: 10
```

```
1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10 NYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 11
US-10-032-376A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-153-185-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JS-10-219-561-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
a
                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                 ö
                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 11, Application US/10219329
; Publication No. US20030096757A1
; GRNERAL INFORMATION:
; GRNERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Weart, Inona f.
; TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
; TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
; TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
; TITLE OF INVENTION: Anti-Cancer and Wound Healing Compounds
; CURRENT APPLICATION NUMBER: US/10/19,329
; CURRENT FILING DATE: 2002-08-15
; PRIOR APPLICATION NUMBER: US 60/312,726
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: PASTSEQ for Windows Version 4.0
; SEQ ID NO 11
: LENGTH: 19
                                                                                                                                                                                                                                     VESULIA (191-488-13)

Sequence 13, Application US/11031488

Publication Wo. US20055239710A1

GENERAL INFORMATION:
APPLICANT: Walik, Stephen

TITLE OF INVENTION: Anti-dging and Wound Healing Compounds

FILE REPERENCE: 1443.0340S1

CURRENT APPLICATION NUMBER: US/11/031,488

CURRENT FILING DATE: 2005-01-07

PRIOR PRILING DATE: 2005-01-07

PRIOR PILING DATE: 2001-12-21

PRIOR PILING DATE: 2001-08-16

NUMBER OF SEQ ID NOSS: 20

SOPTWARE: FRASEQ for Windows Version 4.0

LENGTH. 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 100.0%; Score 60; DB 4; Length 19; Best Local Similarity 100.0%; Pred. No. 0.0069; Matches 10; Conservative 0; Mismatches 0; Indels
                                        100.0%; Score 60; DB 5; Length 10; 100.0%; Pred. No. 0.0037;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 60; DB 6; Length 10; 100.0%; Pred. No. 0.0037;
                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                      Query Match 100.
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10; Conservative
                                                                                                                                             1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 NYNFFPRKPK 10
                                                                                                                          1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
Matches 10; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-11-031-488-13
  US-10-601-059-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 8
US-10-219-329-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-219-329-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 10
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

Take of Street

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gарв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
UG-10-15-185-11

Sequence 11, Application US/10153185

Publication No. US20030148959A1

SEGRERAL INFORMATION:

APPLICANT: Quirk, Stephen

TILE OF INVENTION:

PILE REFERENCE: 1443.034US1

CURRENT FILING DATE: 2002-08-13

PRIOR APPLICATION NUMBER: US/10/153,185

CURRENT FILING DATE: 2001-08-13

PRIOR PILING DATE: 2001-02-21

PRIOR APPLICATION NUMBER: US 60/312,726

PRIOR APPLICATION NUMBER: US 60/312,726

PRIOR APPLICATION NUMBER: US 60/312,726

NUMBER OF SEQ ID NOS: 20

SOFTWARE: FastSEQ for Windows Version 4.0

1.ENGRENT 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    USEQUENCE 11, Application US/10219561

Publication No. US20030166567A1

GENERAL INFORMATION:

APPLICANT: Quirk, Stephen

APPLICANT: Walik, Sohail

APPLICANT: Walik, Sohail

APPLICANT: Villanueva, Julie M.

TITLE REFERENCE: 1443.008US2

CURRENT APPLICATION NUMBER: US/10/219,561

CURRENT APPLICATION NUMBER: US 10/032,376

PRIOR APPLICATION NUMBER: US 10/32,376

PRIOR APPLICATION NUMBER: US 10/32,376

PRIOR APPLICATION NUMBER: US 60/312,726

PRIOR PILING DATE: 2001-08-16

SEQ ID NO 11

SEQ ID NO 11

LENGTH: 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ch 100.0%; Score 60; DB 4; Length 19; 1 Similarity 100.0%; Pred. No. 0.0069; 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 100.0%; Score 60; DB 4; Best Local Similarity 100.0%; Pred. No. 0.0069; Matches 10; Conservative 0; Mismatches 0.
```

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-219-329-15

Sequence 15, Application US/10219329

Publication No. US20030096757A1

GENERAL INFORMATION:

APPLICANT: Weart, Ilona f.

TITLE OP INVENTION: Anti-Cancer and Wound Healing Compounds

FILE REPERENCE: 1443.035W01

CURRENT APPLICATION NUMBER: US/10/219,329

CURRENT FILING DATE: 2002-08-15

PRIOR FILING DATE: 2001-12-21

PRIOR FILING DATE: 2001-12-21

PRIOR FILING DATE: 2001-08-16

PRIOR FILING DATE: 2001-08-16

NUMBER OF SEQ ID NOS: 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 11, Application US/11031488
; Publication No. US20050239710A1
; GENERAL INFORMATION:
; APPLICANT: Quirk, Stephen
; APPLICANT: Quirk, Stephen
; APPLICANT: Quirk, Stephen
; APPLICANT: Wallk, Sohail
; TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
; FILE REPERENCE: 1443.034US1
; CURRENT APPLICATION NUMBER: US/11/031,488
; CURRENT FILING DATE: 2005-01-07
; PRIOR FILING DATE: 2002-05-21
; PRIOR FILING DATE: 2001-12-21
; PRIOR FILING DATE: 2001-12-21
; PRIOR FILING DATE: 2001-12-21
; PRIOR FILING DATE: 2001-08-16
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
                                                                                                                                                                                                                                                                                                                                 100.0%; Score 60; DB 5; Length 19; 100.0%; Pred. No. 0.0069; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.0%; Score 60; DB 6; L. Best Local Similarity 100.0%; Pred. No. 0.0069; Matches 10; Conservative 0; Mismatches 0;
                   PRIOR FILING DATE: 2002-05-21
PRIOR APPLICATION NUMBER: US 10/032,376
PRIOR PILING DATE: 2001-12-21
PRIOR PILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 21
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 11
LENGTH: 19
    PRIOR APPLICATION NUMBER: US 10/153,185
                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                    1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10 NYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10 NYNFFPRKPK 19
                                                                                                                                                                                                                                                                   ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 14
US-11-031-488-11
                                                                                                                                                                                                                                                                                          US-10-601-059-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-11-031-488-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                APPLICANT: CALIFK, Steven
TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
FILE REFERENCE: 1443.008USI
CURRENT APPLICATION INWERS: US/10/032,376A
CURRENT FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: 6/312,726
PRIOR PLING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 20
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 11
LENGTH: 19
TYPE: PRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
100.0%; Score 60; DB 4; Length 19;
Best Local Similarity 100.0%; Pred. No. 0.0069;
Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 60; DB 4; Length 19; 100.0%; Pred. No. 0.0069; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
US-10-335-207-11

Sequence 11, Application US/10335207

Publication No. US20040127421A1

GENERAL INFORMATION:

APPLICANT: Malik, Schail

TITLE OF INVENTION: Method to Increase Pibronectin

PILE REFERENCE: 1443.047US1

CURRENT APPLICATION NUMBER: US/10/335,207

CURRENT PILING DATE: 2002-12-30

NUMBER OF SEQ ID NOS: 21

SOFTWARE: FastSEQ for Windows Version 4.0

LENGTH: 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 13
US-10-601-059-11
Sequence 11, Application US/10601059
Publication No. US20040259802A1
GENERAL INFORMATION:
APPLICANT: Yang, Shu-Ping
TITLE OP INVENTION: Acephen
TITLE OP INVENTION: Acephen
CURRENT APPLICANT: Kimberly-Clark Worldwide, Inc.
FILE REFERENCE: 1443.064US1
CURRENT APPLICATION NUMBER: US/10/601,059
CURRENT APPLICATION NUMBER: US 10/335,207
PRIOR APPLICATION NUMBER: US 10/335,207
PRIOR FILING DATE: 2002-12-30
PRIOR FILING DATE: 2002-08-15
PRIOR APPLICATION NUMBER: PCT/US02/26319
PRIOR APPLICATION NUMBER: PCT/US02/26319
Sequence 11, Application US/10032376A Publication No. US20040127420A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10 NYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10 NYNFFPRKPK 19
                                                                                                                                                                                                                                                                                                                                                        , ORGANISM: Homo sapiens
US-10-032-376A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
Matches 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-335-207-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
```

ö

Gaps

ö

```
Sequence 15, Application US/10032376A; Publication Vo. US20040127420A1; Publication No. US20040127420A1; Publication No. US20040127420A1; GENERAL INFORMATION:
APPLICANT: Quirk, Seeven
TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing; TITLE OF INVENTION: NUMBER: US/10/032,376A; CURRENT FILING DATE: 2001-12-21; PRIOR APPLICATION NUMBER: 60/312,726; PRIOR FILING DATE: 2001-08-16; NUMBER OF SEQ ID NOS: 20
SOFTWARE: FastSEQ for Windows Version 4.0; SEQ ID NO 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ilarity 100.0%; Score 60; DB 4; Length 43; Conservative 0; Mismatches 0: Indole
                             100.0%; Score 60; DB 4; Length 43; 100.0%; Pred. No. 0.015;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 60; DB 4; Length 43; 100.0%; Pred. No. 0.015;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-335-207-15

Sequence 15, Application US/10335207

Publication No. US20040127421A1

GENERAL INFORMATION:

APPLICANT: Malik, Sohail

APPLICANT: Quirk, Stephen

TITLE OF INVENTION: Method to Increase Fibronectin

FILE REPERENCE: 1443.047US1

CURRENT APPLICATION NUMBER: US/10/335,207

CURRENT FILING DATE: 2002-12-30

NUMBER OF SEQ ID NOS: 21

SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                 0, Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-601-059-15

Sequence 15, Application US/10601059

Publication No. US20040259802A1

PUBLICANT: Yang, Shu-Ping

APPLICANT: Yang, Shu-Ping
                                                   Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                  1 NYNFFPRKPK 10
                                                                                                                                                                     33 NYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             33 NYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 NYNPPPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        33 NYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; ORGANISM: Homo sapiens
US-10-032-376A-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
Matches 10; Conserv
                                                                                                                                                                                                                                                              RESULT 18
US-10-032-376A-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-335-207-15
                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                    ઠે
                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 15, Application US/10153185

Publication No. US20030148959A1

GENERAL INFORMATION:

APPLICANT: Quirk, Schehen

TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds

FILE REFERENCE: 1443.0340S1

CURRENT FILING DATE: 2002-08-13

PRIOR PLICATION NUMBER: US/10/153,185

PRIOR PLICATION NUMBER: US 10/032,376

PRIOR PLICATION NUMBER: US 0/032,376

PRIOR PLICATION NUMBER: US 0/032,376

PRIOR PLICATION NUMBER: US 0/032,376

PRIOR PLING DATE: 2001-12-21

PRIOR PLING DATE: 2001-08-16

NUMBER OF SEQ ID NOS: 20

SOFTWARE: PastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 17
US-10-219-561-15
Sequence 15, Application US/10219561
Sequence 15, Application US/10219561
Publication No. US20030166567A1
GENERAL INFORMATION:
APPLICANT: OULIK, Schahl
APPLICANT: Willanueva, Julie M.
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
FILE REPERBNCE: 1443.008105.
CURRENT APPLICATION NUMBER: US/10/219,561
CURRENT PILING DATE: 2002-08-15
PRIOR PILING DATE: 2001-08-15
PRIOR PILING DATE: 2001-08-16
PRIOR FILING DATE: 2001-08-16
PRIOR FILING DATE: 2001-08-16
PRIOR FILING DATE: 2001-08-16
SPRIOR FILING DATE: 2001-08-16
                                                                                                                                                                                100.0%; Score 60; DB 4; Length 43; 100.0%; Pred. No. 0.015;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 60; DB 4; Length 43; 100.0%; Pred. No. 0.015; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                                   0; Mismatches
SOFTWARE: PastSEQ for Windows Version 4.0 SEQ ID NO 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                        Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                    1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                    33 NYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              33 NYNFFPRKPK 42
                                                                         TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 16
US-10-153-185-15
                                                                                                                            US-10-219-329-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JS-10-153-185-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-219-561-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 15
LENGTH: 43
                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
```

ö

ö

Gaps

.. 0

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                  APPLICANT: Quirk, Stephen
APPLICANT: Quirk, Stephen
APPLICANT: Weart, Ilona f.
ITILE OF INVENTION: Anti-Cancer and Wound Healing Compounds
FILE REFERENCE: 1443.035WO1
CURRENT APPLICATION NUMBER: US/10/219,329
CURRENT FILING DATE: 2002-08-15
PRIOR APPLICATION NUMBER: US 10/032,376
PRIOR APPLICATION NUMBER: US 60/312,726
PRIOR APPLICATION NUMBER: US 60/312,726
PRIOR FILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 23
SOFTWARE: FastSEQ for Windows Version 4.0
IENGTH: 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-153-185-2

Sequence 2, Application US/10153185

Sequence 2, Application US/10153185

Publication No. US20030148959A1

GENERAL INFORMATION:

APPLICANT: Malik, Stephen

APPLICANT: Malik, Stephen

TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds

FILE REFERENCE: 1443.034US1

CURRENT FILING DATE: 2002-08-13

PRIOR PILING DATE: 2002-08-13

PRIOR PILING DATE: 2001-08-16

PRIOR PILING DATE: 2001-08-16

NUMBER OF SEQ ID NOS: 20

SOFTWARE: PastSEQ for Windows Version 4.0

SEQ ID NO 2:

LENGTH: 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ouery Match 100.0%; Score 60; DB 4; Length 44; Best Local Similarity 100.0%; Pred. No. 0.016; Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 60; DB 4; Length 44; 100.0%; Pred. No. 0.016;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 2, Application US/10219561
Publication No. US20030166567A1
GENERAL INPORMATION
APPLICANT: Guirk, Stephen
APPLICANT: Walik, Sohall
APPLICANT: Villanueva, Julie M.
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
FILE REFERENCE: 1443.008US2
CURRENT FILING DATE: 2002-08-15
PRIOR APPLICATION NUMBER: US/10/219,561
PRIOR APPLICATION NUMBER: US 10/032,376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 100.
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          33 NYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    33 NYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-219-561-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-219-329-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-153-185-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 21
US-11-031-488-15
i Sequence 15, Application US/11031488
i Publication No. US20050239710A1
i GENERAL INFORMATION:
A APPLICANT: OULIFK, Stephen
i APPLICANT: OULIFK, Stephen
i TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
if ITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
if TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
if TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
if TITLE OF INVENTION: Auti-Aging and Wound Healing Compounds
if TITLE OF INVENTION: Auti-Aging and Wound Healing
CURRENT FILING DATE: 2005-01-07
i PRIOR FILING DATE: 2001-07
i PRIOR FILING DATE: 2001-12-21
i PRIOR FILING DATE: 2001-12-21
i PRIOR FILING DATE: 2001-08-16
i NUMBER OF SEQ ID NOS: 20
i SOFTWARE: PRESERE FOR Windows Version 4.0
i SEQ ID NO 15
i LENGTH: 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 60; DB 5; Length 43; 100.0%; Pred. No. 0.015;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 60; DB 6; Length 43; 100.0%; Pred. No. 0.015;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
APPLICANT: Quirk, Stephen
APPLICANT: Kimberly-Clark Worldwide, Inc.
TITLE OF INVENTION: Anti-Chrondrosarcoma Compounds
FILE REFERENCE: 1443.064051
CURRENT PAPLICATION NUMBER: US/10/601,059
CURRENT FILING DATE: 2003-06-20
PRIOR APPLICATION NUMBER: US 10/319,329
PRIOR FILING DATE: 2002-12-30
PRIOR PLICATION NUMBER: US 10/219,329
PRIOR FILING DATE: 2002-08-15
PRIOR PLICATION NUMBER: PCT/US02/26319
PRIOR PLICATION NUMBER: US 10/15,185
PRIOR PLICATION NUMBER: US 10/153,185
PRIOR PLICATION NUMBER: US 10/032,376
PRIOR PLICATION NUMBER: US 60/312,726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 22
US-10-219-329-2
Sequence 2, Application US/10219329
; Publication No. US20030096757A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             33 NYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   33 NYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; ORGANISM: Homo sapiens
US-10-601-059-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
Matches 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-11-031-488-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
```

셤 ઠે

ö

a

ઠે

ö

8 셤

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 2, Application US/11031488

Publication No. US20050239710A1

GENERAL INFORMATION:

APPLICANT: Quirk, Stephen

APPLICANT: Quirk, Stephen

TITLE OF INVENTION: Antl-Aging and Wound Healing Compounds

FILE REFERENCE: 1443.0340S1

CURRENT APPLICATION NUMBER: US/11/031,488

CURRENT FILING DATE: 2005-01-07

PRIOR FILING DATE: 2002-05-21

PRIOR FILING DATE: 2001-12-21

PRIOR FILING DATE: 2001-12-21

PRIOR FILING DATE: 2001-08-16

PRIOR FILING DATE: 2001-08-16

PRIOR FILING DATE: 2001-08-16

PRIOR FILING DATE: 2001-08-16

SEQ ID NOS: 20

SEC ID NOS: 20

SEC ID NOS: 20

SEC ID NOS: 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 100.0%; Score 60; DB 5; Length 44; Best Local Similarity 100.0%; Pred. No. 0.016; Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 60; DB 6; Length 44;
                                                                                                                                                                                                                                                                                                                                            JOHNSTON TO STATE TO STATE TO STATE THE STATE TO STATE TO
                                                                                                                                                                                                                                                          Sequence 2, Application US/10601059
Publication No. US20040259802A1
GENERAL INFORMATION:
                                                                               33 NYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        33 NYNFFPRKPK 42
                                              1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; ORGANISM: Homo sapiens
US-10-601-059-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-11-031-488-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-11-031-488-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 28
                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Quirk, Steven
TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
FILE REFERENCE: 1443.008USI.
CURRENT APPLICATION NUMBER: US/10/032,376A
CURRENT FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: 60/312,726
NUMBER OF SEQ ID NOS: 200
SOFTHANKE: FREEEEQ FOR Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 100.0%; Score 60; DB 4; Length 44; Best Local Similarity 100.0%; Pred. No. 0.016; Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 60; DB 4; Length 44; 100.0%; Pred. No. 0.016;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 60; DB 4; Length 44; 100.0%; Pred. No. 0.016; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 2, Application US/10335207
; Publication No. US20040127421A1
; GENERAL INFORMATION:
; APPLICANT: Malik, Sohail
; APPLICANT: Quirk, Stephen
; TITLE OF INVENTION: Method to Increase Fibronectin
; FILE REFERENCE: 1443.047US1
; CURRENT APPLICATION NUMBER: US/10/335,207
; CURRENT FILING DATE: 2002-12-30
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2:
LENGTH: 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
PRIOR FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: US 10/153,185
PRIOR FILING DATE: 2002-05-21
PRIOR PLING DATE: 2001-08-16
PRIOR PILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 21
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; Sequence 2, Application US/10032376A; Publication No. US20040127420A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 100.
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      33 NYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            33 NYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-335-207-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 10; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-032-376A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-032-376A-2
                                                                                                                                                                                                                                                                                                                                                         US-10-219-561-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 26
US-10-335-207-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 2
```

ઠ 셤

ö

ω

ö

Gaps

ö

```
Splice Variants and Methods Relating to Lung Specify
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: DOMAIN
LOCATION: (221)
LOCATION: (221)
OTHER INFORMATION: Type II fibronectin collagen-binding domain proteins domain
OTHER INFORMATION: identified by eMATRIX, accession number BL00023, p-value=4.682e-3;
OTHER INFORMATION: raw score of 24.31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION: (167)..(264)
OTHER INFORMATION: Fibronectin type II domain identified by PFam, accession name
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 60; DB 5; Length 462; 100.0%; Pred. No. 0.15;
Score 60; DB 3; Length 75;
Pred. No. 0.026;
; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 54360, Application US/10450763
Publication No. US20050196754A1
GENERAL INFORMATION:
APPLICANT: Hyseq, Inc
TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES
FILE REPRENCE: 790CT19JUS
CURRENT APPLICATION NUMBER: US/10/450,763
CURRENT FILING DATE: 2003-06-11
PRIOR PILING DATE: 2001-03-30
PRIOR FILING DATE: 2000-03-31
PRIOR PLICATION NUMBER: 09/540,217
PRIOR PLICATION NUMBER: 09/649,167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                            APPLICANT: Turner, Leah
APPLICANT: Turner, Leah
TITLE OF INVENTION: Compositions, Splice Variants
TITLE OF INVENTION: Nucleic Acids and Proteins
FILE REPERENCE: DEX.-0486
CURRENT APPLICATION NUMBER: US/10/852,707
CURRENT FILING DATE: 2004-05-24
PRIOR RAPPLICATION NUMBER: US 60/473,941
PRIOR PALICATION NUMBER: US 60/473,941
PRIOR PILING DATE: 2003-05-22
NUMBER OF SEQ ID NOS: 138
SOFTWARE: Patentin version 3.1
SEQ ID NO 56
LENGTH: 462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                           0; Mismatches
                                                                                                                                                                                                                              Sequence 56, Application US/10852707
Publication No. US20050142572A1
GENERAL INFORMATION:
APPLICANT: Macina, Roberto
Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 10; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 NYNFFPRKPK 10
                                                                                    1 NYNFFPRKPK 10
                                                                                                                           58 NYNPPPRKPK 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-450-763-54360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-852-707-56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                   ö
                         Gaps
                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MAP TO AC007336.2

EXPRESSED IN HEART, SIGNAL = 1.1

EXPRESSED IN DLACENTA, SIGNAL = 1.5

EXPRESSED IN LUNG, SIGNAL = 2

EST HUMAN HIT: A1752577.1, EVALUE 1.00e-41

SWISSPROT HIT: P33436, EVALUE 1.00e-42
100.0%; Pred. No. 0.016;
Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 49117
SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
SEQ ID NO 37964
LENGTH: 75
Best Local Similarity 100.
Matches 10; Conservative
                                                              1 NYNFFPRKPK 10
                                                                                                     33 NYNFFPRKPK 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION: MOTHER INFORMATION: E OTHER INFORMATION: E OTHER INFORMATION: E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE:
                                                                                                   g
```

ò

Gaps

ö

ö

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-219-329-14

Sequence 14, Application US/10219329

Sequence 14, Application US/10219329

Publication No. US20030096757A1

GENERAL INFORMATION:

APPLICANT: Weart, Ilona

TITLE OF INVENTION: Anti-Caner and Wound Healing Compounds

FILE REFERENCE: 1443.035W01

CURRENT APPLICATION NUMBER: US/10/219,329

CURRENT FILING DATE: 2002-08-15

PRIOR APPLICATION NUMBER: US 10/032,376

PRIOR APPLICATION NUMBER: US 60/312,726

PRIOR FILING DATE: 2001-08-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 60; DB 4; Length 660; 100.0%; Pred. No. 0.21; cive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 60; DB 3; Length 660; 100.0%; Pred. No. 0.21; tive 0; Mismatches 0; Indel8
                                                                                                                                                                                                                                    Sequence Application US/09918715
; Sequence O US20030017157A1
; GENERAL INFORMATION:
; APPLICANT: Brad St. Croix
; APPLICANT: Brad St. Croix
; APPLICANT: Bert Vogelstein
; TITLE OF INVENTION: ENDOTHELIAL CELL EXPRESSION PATTERNS
; TITLE OF INVENTION: ENDOTHELIAL CELL EXPRESSION PATTERNS
; TITLE OF INVENTION: ENDOTHELIAL CELL EXPRESSION PATTERNS
; TILE OF INVENTION: ENDOTHELIAL CELL EXPRESSION PATTERNS
; FILE REFERENCE: 1107.00134
; CURRENT FILING DATE: 2001-08-01
; PRIOR APPLICATION NUMBER: 60/22,599
; PRIOR PALLICATION NUMBER: 60/22,599
; PRIOR PELING DATE: 2000-08-01
; PRIOR PILING DATE: 2000-08-01
; NUMBER OF SEQ ID NOS: 358
; SOFTWARE: FESTESEQ for Windows Version 3.0
; SEQ ID NO 208
; LENGTH: 660
                               Indels
                            .;
0
  Best Local Similarity 100.0%; Pred. No. 0.2 Matches 10; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQ ID NOS: 23
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 14
LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 100.
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 100 Matches 10; Conservative
                                                                                                          109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              109 NYNFFPRKPK 118
                                                                             1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 NYNPPPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 NYNPFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   , ORGANISM: Homo sapiens
US-09-918-715-208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         , ORGANISM: Homo sapiens
US-10-219-329-14
                                                                                                                                                                                                                               US-09-918-715-208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                       d
                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ## Sequence 35, Application US/09801196
## Patent No. US20020037827A1
## GENERAL INFORMATION:
## APPLICANT: Wang, Kai
## APPLICANT: Fajardo, Mark
## APPLICANT: Fajardo, Mark
## APPLICANT: Pajardo, Mark
## APPLICANT: Mose Patrick
## APPLICANT: Pajardo, Mark
## APPLICANT: Pajardo, Mark
## APPLICANT: Pajardo, Mark
## APPLICANT: Pajardo, Mark
## APPLICANT: Pajardo, Pajardo
## CURRENT APPLICANT: US/09/801,196
## CURRENT PILING DATE: 2001-03-06
## NUMBER OF SEQ ID NOS: 37
## SEQ ID NO 35
## LENGTH: 660
## LENGTH: E60
                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ô
                                                                                                                                                                                                                                                                                                                                                                                           RESULT 32
US-09-391-104-19

Sequence 19, Application US/09391104

Sequence 19, Application US/09391104

Publication No. US20020031817A1

GENERAL INFORMATION:

APPLICANT: Abbott Laboratories

APPLICANT: Magnuson, Scott R.

APPLICANT: Magnuson, Scott R.

APPLICANT: Magnuson, Scott R.

APPLICANT: Magnuson, Scott R.

TITLE OF INVENTION: PROTEINS ENCODED THEREFROM AND METHODS

TITLE OF INVENTION: OF USING SAME

FILE REFERENCE: 6073.US.Pl

CURRENT APPLICATION NUMBER: US/09/391,104

CURRENT PILING DATE: 1999-09-07

PRIOR PILING DATE: 1997-03-11

NUMBER OF SEQ ID NOS: 35

SOFTWARKE: FastESQ for Windows Version 3.0

SEQ ID NO 19

LENGTH: 660
OTHER INFORMATION: fn2, E-value=4.4e-55, PFam score of 147.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 60; DB 3; Length 660; 100.0%; Pred. No. 0.21; tive 0; Mismatches 0; Indels
                                                                                                                                                                        100.0%; Score 60; DB 5; Length 468; 100.0%; Pred. No. 0.15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 60; DB 3; Length 660;
                                                                                                                                                                                                                            0; Indels
                       PRATURE:
NAME/KEY: misc feature
LOCATION: (1)...(468)
COTHER INFORMATION: Xaa = X or * as defined in Table
US-10-450-763-54360
                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 100.
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                       1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
CORGANISM: Homo sapiens
US-09-391-104-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 33
US-09-801-196-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-801-196-35
                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                       셤
```

ઠે

ö

ö

Contract Sin

```
||||||||||
109 NYNFFPRKPK 118
109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Dack, Kevin N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; ORGANISM: Homo sapiens
US-10-131-985-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo sapiens
                                                                                                                                                         US-10-219-561-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-131-985-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-219-561-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 39
                                                                                                        RESULT 38
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                          APPLICANT: Millenbluw Fnathwaccullars, inc.
APPLICANT: Berger, Allien
APPLICANT: Guillemette, Tracy L.
APPLICANT: Ganatkar, Allien
APPLICANT: Schledgel, Robert
APPLICANT: Schledgel, Robert
APPLICANT: Monahan, John E.
APPLICANT: Thibodeau, Stephen N.
APPLICANT: Thibodeau, Stephen N.
APPLICANT: Thibodeau, Stephen N.
APPLICANT: Thibodeau, Stephen N.
APPLICANT: MUSHTION: NOVEL GENES, COMPOSITIONS, KITS, AND
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, ASSESSMENT, PREVENTION:
TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT,
TITLE OF INVENTION: THERAPY OF COLON CANCER
TITLE OF INVENTION: THERAPY OF COLON CANCER
TITLE OF INVENTION NUMBER: US 10/10/301,822
CURRENT APPLICATION NUMBER: US 60/331,971
PRIOR PILING DATE: 2002-11-21
PRIOR PILING DATE: 2002-03-05
PRIOR FILING DATE: 2002-03-05
PRIOR FILING DATE: 2002-03-05
PRIOR FILING DATE: 2002-05-20
NUMBER OF SEQ ID NOS: 228
SSO ID NO 125
TENTIFY OF THE TRACE OF TH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 14, Application US/10153185

Publication No. US20030148959A1

GENERAL INFORMATION:
TOTAL INFORMATION:
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds

FILE REFERENCE: 1443.034US1
CURRENT APPLICATION NUMBER: US/10/153,185

CURRENT FILING DATE: 2002-08-13

FRIOR FILING DATE: 2001-12-21
FRIOR FILING DATE: 2001-12-21

FRIOR FILING DATE: 2001-12-21

FRIOR FILING DATE: 2001-12-21

NUMBER OF SEQ ID NOS: 20

SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 100.0%; Score 60, DB 4, Length 660, Best Local Similarity 100.0%; Pred. No. 0.21; Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 100.0%; Score 60; DB 4; Length 660; Best Local Similarity 100.0%; Pred. No. 0.21; Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                          APPLICANT: Millennium Pharmaceuticals, Inc.
                                                                                                                                         Sequence 125, Application US/10301822
Publication No. US20030148410A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Homo Sapiens
US-10-301-822-125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 37
US-10-153-185-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-153-185-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
```

1 NYNFFPRKPK 10

```
REGULT 38

ONE-10-219-251-4

INSULED TO SECURATE SECURATION OF THE PROPERTY SECURATION OF THE PROPERTY
```

```
NUMBER OF SEQ ID NOS: 21
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 14
LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1, Application US/10480621
Publication No. US20040175817A1
GENERAL INFORMATION:
                                                                                                                                                                                                     Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 100.
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                        109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ||||||||||
109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                        1 NYNPFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 NYNFFPRKPK 10
                                                                                          type: PRT CAGANISM: Homo sapiens US-10-335-207-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 , ORGANISM: Homo sapiens
US-10-480-621-1
                                                                                                                                                                                                                                                                                                                                                                                   RESULT 43
US-10-480-621-1
                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 44
                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Quirk, Steven
TITLE OF INVENTION: Metalloproteinase Inhibitors for Wound Healing
FILE REPRENCE: 1443.008USI
CURRENT APPLICATION NUMBER: US/10/032,376A
CURRENT PILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: 60/312,726
PRIOR PILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 20
SOFTWARE: PRASESQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.0%; Score 60; DB 4; Length 660; Best Local Similarity 100.0%; Pred. No. 0.21; Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 60; DB 4; Length 660; 100.0%; Pred. No. 0.21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Malik, Sohail
APPLICANT: Malik, Stephen
TITLE OF INVENTION: Method to Increase Fibronectin
FILE REFERENCE: 1443.047US1
CURRENT APPLICATION NUMBER: US/10/335,207
CURRENT FILING DATE: 2002-12-30
                                                                                                                                                  APPLICANT: Helsaig, Beate
APPLICANT: Helsaig, Beate
APPLICANT: Hattori, Koichi
APPLICANT: Cornell Research Foundation, Inc.
TITLE OF INVENTION: Adult Stem Cell Recruitment
FILE REFERENCE: 1676.006US1
CURRENT APPLICATION NUMBER: US/10/447,315
CURRENT FILING DATE: 2003-05-28
PRIOR APPLICATION NUMBER: US 60/383,658
PRIOR PILICATION NUMBER: US 60/383,658
NUMBER OF SEQ ID NOS: 28
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-032-376A-14
Sequence 14, Application US/10032376A
Publication No. US20040127420A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-335-207-14; Sequence 14, Application US/10335207; Publication No. US2040127421A1; GENERAL INFORMATION:
                                                         Sequence 3, Application US/10447315; Publication No. US20040071687A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                109 NYNPPPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 NYNPPPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-032-376A-14
                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 3
LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 14
LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-447-315-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Jepenson, Holly
APPLICANT: Minshull, Claire
APPLICANT: Minshull, Claire
APPLICANT: Pauptit, Richard
APPLICANT: Pauptit, Richard
APPLICANT: Pauptit, Richard
APPLICANT: Rowesl, Sian
TITLE OF INVENTION: METALLOPROTEINASE 9 (MMP9) AND THE USE OF
TITLE OF INVENTION: METALLOPROTEINASE 9 (MMP9) AND THE USE OF
TITLE OF INVENTION: MMP9 MODULATORS
FILE REPERENCE: 00279-377018
CURRENT APPLICATION NUMBER: US/10/480,621
CURRENT FILING DATE: 2003-12-12
PRIOR FILING DATE: 2003-20-24
PRIOR PLILING DATE: 2001-06-27
PRIOR APPLICATION NUMBER: SE 0102298-7
PRIOR PLILING DATE: 2001-06-27
SOFTWARE: PALENTIN VEY: 2.1
SOFTWARE: PALENTIN VEY: 2.1
                                                           ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 60; DB 4; Length 660; 100.0%; Pred. No. 0.21;
100.0%; Score 60; DB 4; Length 660; 100.0%; Pred. No. 0.21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-474-794-208

Sequence 208, Application US/10474794

Publication No. US20040213793A1

Publication No. US20040213793A1

GENERAL INFORMATION:

APPLICANT: Carson-Walter, Eleanor

APPLICANT: St. Croix, Berd

APPLICANT: Kinzler, Kenneth

TITLE OF INVENITON: ENDOTHELIAL CELL EXPRESSION PATTERNS

TITLE OF INTURNITON: ENDOTHELIAL CELL EXPRESSION PATTERNS

FILE REFERENCE: 1107.00179

CURRENT FILING DATE: 2003-10-14

PRIOR APPLICATION NUMBER: 60/282,850

PRIOR APPLICATION NUMBER: 60/308,829

PRIOR APPLICATION NUMBER: 60/308,829

PRIOR PILING DATE: 2001-04-11

PRIOR PILING DATE: 2001-04-11

PRIOR PILING DATE: 2001-08-01

NUMBER OF SEQ. ID NOS: 359

SOFTWARE: PREUSEQ for Windows Version 4.0
                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
```

o,

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 100.0%; Score 60; DB 5; Length 660; Best Local Similarity 100.0%; Pred. No. 0.21; Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 60; DB 5; Length 660; 100.0%; Pred. No. 0.21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 48
US-10-979-159-208
; Sequence 208, Application US/10979159
; Publication No. US20050142138A1
; GENERAL INFORMATION:
; APPLICANT: Brad St. Croix
; APPLICANT: Bert Vogelstein
; APPLICANT: Renteth Kinzler
; TITLE OF INVENTION: ENDOTHELIAL CELL EXPRESSION PATTERNS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 25, Application US/10901417
; Sequence 25, Application US/10901417
; Publication No. US20050026836A1
; GENERAL INFORMATION:
    APPLICANT: Davies, Michael J
    APPLICANT: Bavies, Michael J
    APPLICANT: Fish, Paul V
    APPLICANT: Huggins, Jonathan P
    APPLICANT: Michols, Fraser S
    APPLICANT: Michols, Fraser S
    APPLICANT: Occleston, Nichols L
    TITLE OF INVENTION: Composition
    FILE REFERENCE: PCS 10391A
    CURRENT APPLICATION NUMBER: US/10/131,985
    PRIOR FILING DATE: 2004-07-28
    PRIOR APPLICATION NUMBER: US/09/726,295
    PRIOR PILING DATE: 2000-11-30
    PRIOR PILING DATE: 1999-12-29
    NUMBER OF SEQ ID NOS: 60
    SOGTWARR: PatentIn Ver. 2.1
    SEQ ID NO 25
    LENGTH: 660
    LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
## PRIOR FILING DATE: 2003-11-25
| PRIOR APPLICATION NUMBER: BP 04003058
| PRIOR FILING DATE: 2004-02-11
| PRIOR APPLICATION NUMBER: BP 03025871
| PRIOR FILING DATE: 2003-11-11
| PRIOR APPLICATION NUMBER: BP 03025851
| PRIOR APPLICATION NUMBER: BP 03013819
| PRIOR FILING DATE: 2003-11-10
| PRIOR PILING DATE: 2003-06-18
| NUMBER OF SEQ ID NOS: 149
| SEQ ID NO 131
| LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                             US-10-872-198-131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 47
US-10-901-417-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-901-417-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 131, Application US/10872198
| Publication No. US2005002897A1
| GENERAL INFORMATION:
| APPLICANT: Ulrich HAUPTS
| APPLICANT: Andreas SCHEENANN
| APPLICANT: Andreas SCHEENING
| APPLICANT: Andreas SCHEENING
| APPLICANT: Ulrich Kettling
| TILLE OF INVENTION: NEW BIOLOGICAL ENTITIES AND USE THEREOF
| PILE REFERENCE: 04156.0002U4
| CURRENT PILING DATE: 2004-06-18
| PRIOR APPLICATION NUMBER: 60/543,518
| PRIOR PILING DATE: 2004-02-11
| PRIOR PILING DATE: 2004-02-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IOO.0%; Score 60; DB 5; Length 660; Local Similarity 100.0%; Pred. No. 0.21; Conservative 0; Mismath.
                                                                                                                                                 Query Match 100.0%; Score 60; DB 4; Length 660; Best Local Similarity 100.0%; Pred. No. 0.21; Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                              0.21;
----- 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 14, Application US/10601059
| Sequence 14, Application US/10601059
| Publication No. US20040259802A1
| GENERAL INFORMATION:
| APPLICANT: Yang, Shu-Fing
| APPLICANT: Yang, Shu-Fing
| APPLICANT: Kimberly-Clark Worldwide, Inc.
| TILE OF INVENTION: Anti-Chrondrosarcoma Compounds
| FILE REFERENCE: 1443.064021
| CURRENT APPLICATION NUMBER: US/10/601,059
| CURRENT FILING DATE: 2003-06-20
| PRIOR APPLICATION NUMBER: US 10/335,207
| PRIOR PILING DATE: 2002-08-15
| PRIOR PILING DATE: 2002-08-15
| PRIOR PILING DATE: 2002-08-15
| PRIOR APPLICATION NUMBER: US 10/19,329
| PRIOR APPLICATION NUMBER: US 10/19,329
| PRIOR APPLICATION NUMBER: US 10/33,185
| PRIOR APPLICATION NUMBER: US 10/33,185
| PRIOR PILING DATE: 2001-08-15
| PRIOR PILING DATE: 2001-08-15
| PRIOR FILING DATE: 2001-12-11
| PRIOR FILING DATE: 2001-12-21
| PRIOR FILING DATE: 2001-08-16
| NUMBER OF SEQ ID NOS: 21
| SOFTWARE: REALEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                           |||||||||||
109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                1 NYNFFPRKPK 10
                                                    TYPE: PRT
CORGANISM: Homo sapiens
US-10-474-794-208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-601-059-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 46
US-10-872-198-131
     SEQ ID NO 208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 10
                                                                                                                                                                                                                                                                   à
```

ö

ö

Gaps

```
WESULI 201-951-131

Sequence 131, Application US/11021951

Publication No. US20050175581A1

GENERAL INFORMATION:

APPLICANT: HAUTES, Ulrich

APPLICANT: KOLTERMANN, Andre

APPLICANT: COLTERMANN, Andre

APPLICANT: COTEMEIRR, Christian

APPLICANT: COCO, Wayne Michael

ITILE OF INVENTION: And Diagnostic Use Thereof

FILE REPERENCE: 04156.0002U5

CURRENT APPLICATION NUMBER: US/11/021,951

CURRENT FILING DATE: 2004-01-2-2

PRIOR PLING DATE: 2004-01-1

PRIOR PLING DATE: 2004-01-1

PRIOR PLING DATE: 2004-01-1

PRIOR PLING DATE: 2004-01-1

PRIOR PLING DATE: 2003-11-1

PRIOR PLING DATE: 2003-01-13

PRIOR PLING DATE: 2003-01-13

PRIOR PLING DATE: 2003-01-13

PRIOR PLING DATE: 2003-01-13

PRIOR PLING DATE: 2003-01-16

PRIOR PLING DATE: 2003-01-16
                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 100.0%; Score 60; DB 6; Length 660; Best Local Similarity 100.0%; Pred. No. 0.21; Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                       100.0%; Score 60; DB 5; Length 660; 100.0%; Pred. No. 0.21;
                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-11-031-488-14

Sequence 14, Application US/11031488

Publication No. US20050239710A1

GENERAL INFORMATION:
APPLICANT: Quirk, Stephen
APPLICANT: Mailk, Sobail
TITLE OF INVENTION: Anti-Aging and Wound Healing Compounds
FILE REPERENCE: 1443.034031

CURRENT APPLICATION UNMERR: US/11/031,488

CURRENT FILING DATE: 2005-01-07
                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                Query Match
Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                    109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ||||||||||
109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                 1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 NYNFFPRKPK 10
                                LENGTH: 660
TYPE: PRT
CRGANISM: Homo sapiens
US-10-287-436A-1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-11-021-951-131
   SEQ ID NO 1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 52
                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
100.0%; Score 60; DB 5; Length 660;
Best Local Similarity 100.0%; Pred. No. 0.21;
Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 489, Application US/10287436A
; Publication No. US20050202421A1
; GENERAL INPORMATION:
; APPLICANT: CHILDREN'S HOSPITAL MEDICAL CENTER
; TITLE OF INVENTION: METHOD FOR DIAGNOSIS AND TREATMENT OF
; TITLE OF INVENTION: RHEUMATOID ARTHRITIS
; FILE REPERENCE: 10872.514696
; CURRENT APPLICATION NUMBER: US 60/336,220
; PRIOR FILING DATE: 2002-10-31
; PRIOR FILING DATE: 2001-10-31
; NUMBER OF SEQ ID NOS: 1446
; SOFTWARE: PRESEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 60; DB 5; Length 660; 100.0%; Pred. No. 0.21; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-287-436A-1185

Sequence 1185, Application US/10287436A

PUBLICATION NO. US20050202421A1

GENERAL INFORMATION:
TITLE OF INVENTION: METHOD FOR DIAGNOSIS AND TREATMENT OF TITLE OF INVENTION: REPUDD ARTHRITIS

FILE REPERENCE: 10872.514696

CURRENT PLILOTATION NUMBER: US/10/287,436A

CURRENT PLILOTATION NUMBER: US 60/336,220

PRIOR APPLICATION NUMBER: US 60/336,220

PRIOR PLING DATE: 2002-10-31

PRIOR PLING DATE: 2002-10-31

PRIOR PLING DATE: 2002-10-31

SPRIOR PLING DATE: 2002-10-31

NUMBER OF SEQ ID NOS: 1446

SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0.21;
                   CURRENT APPLICATION NUMBER: US/10/979,159
CURRENT FILING DATE: 2004-11-03
PRIOR APPLICATION NUMBER: US/09/918,715
PRIOR PILING DATE: 2001-08-01
PRIOR PILING DATE: 2000-08-02
PRIOR PILING DATE: 2000-08-02
PRIOR APPLICATION NUMBER: 60/224,360
PRIOR PILING DATE: 2000-08-11
PRIOR PILING DATE: 2000-08-11
PRIOR PILING DATE: 2000-08-11
PRIOR FILING DATE: 2000-04-11
SOPTWARE: FastSEQ for Windows Version 3.0
SOPTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 100.
Matches 10; Conservative
FILE REFERENCE: 1107.00134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |||||||||||
109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Homo sapiens
US-10-979-159-208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; ORGANISM: Homo sapiens
US-10-287-436A-489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-287-436A-489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 489
LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
```

ö

Gaps

```
APPLICATION NUMBER: 10/115,223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 100
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     106 NYNFFPRKPK 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   327 NYNFFPRKPK 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; ORGANISM: Gallus gallus
US-10-402-212-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 NYNPFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-450-763-54358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 30, Application US/1011523
; Publication No. US20030176334A1
; GENERAL INFORMATION:
; APPLICANT: Brooks, Peter
; APPLICANT: Cheresh, David A.
; TITLE OF INVENTION: METHODS AND COMPOSITIONS USEFUL FOR INHIBITION OF
; TITLE OF INVENTION: METHODS AND COMPOSITIONS USEFUL FOR INHIBITION OF
; TITLE OF INVENTION: METHODS AND COMPOSITIONS USEFUL FOR INHIBITION OF
; TITLE OF INVENTION: METHODS AND COMPOSITIONS USEFUL FOR INHIBITION OF
; TITLE OF INVENTION: METHODS AND COMPOSITION OF
; TITLE REFERENCE: MEROAGES
; CURRENT FILING DATE: 1996-03-13
; FRIOR APPLICATION NUMBER: 60/018, 773
; FRIOR APPLICATION NUMBER: PRIOR FILING DATE: 1996-05-31
; FRIOR APPLICATION NUMBER: PRIOR SEQ ID NOS: 45
; SOFTWARE: PARENTIN VOMES: PRIOR PLING DATE: 1997-05-30
; NUMBER OF SEQ ID NOS: 45
; SOFTWARE: PARENTIN VOMES: PARENTIN VOME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 100.0%; Score 60; DB 6; Length 660; Best Local Similarity 100.0%; Pred. No. 0.21; Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 100.0%; Score 60; DB 4; Length 663; Best Local Similarity 100.0%; Pred. No. 0.21; Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Brooks, Peter C.
APPLICANT: Cheresh, David A.
APPLICANT: Silecti, Steven A.
APPLICANT: The Scripps Research Institute
TITLE OF INVENTION: METHODS FOR INHIBITION OF ANGIOGENESIS
FILE REPERENCE: TSRI-419.3
CURRENT APPLICATION NUMBER: US/10/402,212
CURRENT FILING DATE: 2003-03-28
PRIOR APPLICATION NUMBER: US/10/153,185
PRIOR FILING DATE: 2002-05-21
PRIOR PILING DATE: 2001-12-21
PRIOR PILING DATE: 2001-12-21
PRIOR PILING DATE: 2001-13-21
PRIOR PILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 20
SOFTWARE: PASTERQ for Windows Version 4.0
SEQ ID NO 14
LENGTH: 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 30, Application US/10402212
Publication No. US20040063790A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               109 NYNFFPRKPK 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                106 NYNFFPRKPK 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; ORGANISM: Gallus gallus
US-10-115-223-30
                                                                                                                                                                                                                                                                                                                                                                                                                                  ; ORGANISM: Homo sapiens
US-11-031-488-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 53
US-10-115-223-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-402-212-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
```

```
NAME/KEY: DOWAIN

LOCATION: (579)..(616)

OTHER INFORMATION: Type II fibronectin collagen-binding domain proteins domain
OTHER INFORMATION: Type II fibronectin collagen-binding domain proteins domain
OTHER INFORMATION: identified by eMATRIX, accession number BL00023, p-value=4.682e-3:
OTHER INFORMATION: raw score of 24.31
NAME/KEY: DOWAIN
LOCATION: (271)..(451)
OTHER INFORMATION: Matrixin domain identified by PFam, accession name
OTHER INFORMATION: Peptidase_MIO, B-value=3.7e-109, PFam score of 376.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 100.0%; Score 60; DB 5; Length 1330; Best Local Similarity 100.0%; Pred. No. 0.42; Matches 10; Conservative 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 60; DB 4; Length 663; 100.0%; Pred. No. 0.21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-450-763-54358

US-10-450-763-54358

Sequence 54358, Application US/10450763

Publication No. US20050196754A1

GENERAL INFORMATION:

TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES

FILE REFERENCE: 790C1P3/US

CURRENT APPLICATION NUMBER: US/10/450,763

CURRENT FILING DATE: 2003-06-11

PRIOR APPLICATION NUMBER: 09/540,217

PRIOR FILING DATE: 2000-03-30

PRIOR FILING DATE: 2000-03-31

SOFTWARE: CLOSTON

SOFTWARE: CLOSTON

SSOFTWARE: CLOSTON

LENGTH: 1330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
PRIOR FILING DATE: 2002-04-02
PRIOR APPLICATION NUMBER: 09/194,468
PRIOR PILING DATE: 1999-03-23
PRIOR FILING DATE: 1999-03-23
PRIOR PILING DATE: 1997-05-30
PRIOR PILING DATE: 1996-05-31
PRIOR PILING DATE: 1996-05-31
PRIOR PILING DATE: 1996-05-31
PRIOR PILING DATE: 1996-05-31
NUMBER OF SEQ ID NOS: 47
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Search completed: February 21, 2006, 18:35:36 Job time : 76.8421 BecB
```

4

This Page Blank (Usoto)

GenCore version 5.1.7 Copyright (c) 1993 - 2006 Biocceleration Ltd.

OM protein - protein search, using sw model

Pebruary 21, 2006, 08:21:13 ; Search time 6.57895 Seconds
(without alignments)
21.644 Million cell updates/sec Run on:

US-10-601-059-13

1 NYNFFPRKPK 10 Perfect score: Sequence: BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

108093 segs, 14239677 residues Searched:

108093 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Published_Applications_AA_New:* Database :

/cgm2 6/ptodata/1/pubpaa/US08 NEW PUB.ppp:*
/cgm2 6/ptodata/1/pubpaa/US06 NEW PUB.ppp:*
/cgm2 6/ptodata/1/pubpaa/US07 NEW PUB.ppp:*
/cgm2 6/ptodata/1/pubpaa/US09 NEW PUB.ppp:*
/cgm2 6/ptodata/1/pubpaa/US09 NEW PUB.ppp:*
/cgm2 6/ptodata/1/pubpaa/US10 NEW PUB.ppp:*
/cgm2 6/ptodata/1/pubpaa/US11 NEW PUB.ppp:*
/cgm2 6/ptodata/1/pubpaa/US11 NEW PUB.ppp:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## STEMMENTES

		d		•	SUMMARIES	
Result No.	Score	Query Match	Query Match Length	DB	ID	Description
-	0.5	001	660	-	IIS-11-186-284-125	and 301 announce
	9		708	٠ ٧	TIS-10-821-234-917	
a m	37	61.7	198	o	US-10-793-626-1572	Sequence 1572. Ap
4	37	61.7	483	7	US-11-037-243-79	
S	36	60.0	71	9	US-10-467-657-8637	863
9	36	0.09	1360	7	US-11-188-743-22	
7	36	0.09	1360	7	US-11-183-294-26	26,
œ	35	58.3	559	9	US-10-821-234-947	947,
6	35	58.3	713	7	US-11-072-512-2818	2818,
10	34	56.7	15	9	US-10-718-264-105	105, 7
11	34	56.7	15	9	US-10-718-264-106	Sequence 106, App
12	34	56.7	15	9	US-10-718-264-105	105,
13	34	56.7	15	9	US-10-718-264-106	٠.
14	34	56.7	21	9	US-10-895-064-1953	1953,
15	34	56.7	108	7	US-11-049-536-244	244, 7
16	34	56.7	231	7	US-11-107-219-6	Sequence 6, Appli
17	34	56.7	233	9	US-10-718-264-12	12
18	34	56.7	233	9	US-10-718-264-167	167,
19	34	56.7	233	9	US-10-718-264-168	168
20	34	56.7	233	9	US-10-718-264-12	Sequence 12, Appl
21	34	56.7	233	9	US-10-718-264-167	167
22	34	56.7	233	9	US-10-718-264-168	168,
23	34	56.7	233	7	US-11-217-562-6	Sequence 6, Appli
24	34	56.7	795	9	US-10-821-234-1002	Sequence 1002, Ap
25	33	55.0	20	9	US-10-485-788A-583	Sequence 583, App

Sequence 1117, Ap Sequence 10372, A Sequence 52500, Ap Sequence 129, App Sequence 1129, App Sequence 113, App Sequence 18, App Sequence 16, App Sequence 26, App Sequence 26, App Sequence 27, App Sequence 27, App Sequence 26, App Sequence 21, Ap	
US-10-467-657-9117 US-11-098-686-10372 US-10-793-626-2500 US-10-995-561-542 US-11-1086-284-129 US-11-1098-686-10543 US-11-108-686-10543 US-11-126-313-38 US-11-126-313-38 US-11-144-248-26 US-11-144-222-26 US-11-144-222-26 US-11-144-222-26 US-11-1099-866-40 US-11-182-343-26 US-11-999-866-40 US-10-988-383-8	
00000000000000000000000000000000000000	
64 2652 2675 2675 2677 2677 1783 1783 1783 1783 1783 1783 1783 17	
7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	

## ALIGNMENTS

```
GENERAL INFORMATION:
APPLICANT: Millennium Pharmaceuticals, Inc.
APPLICANT: Guillemette, Tracy L.
APPLICANT: Guillemette, Tracy L.
APPLICANT: Guillemette, Tracy L.
APPLICANT: Montahan; John E.
APPLICANT: Montahan; John E.
APPLICANT: Montahan; John E.
APPLICANT: Montahan; John E.
APPLICANT: Thibodeau, Stephen N.
APPLICANT: Thibodeau, Stephen N.
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, THERAPY OF COLON CANCER
FILE REFERENCE: MPMO1-029PZNM
CURRENT APPLICATION NUMBER: US/11/186,284
CURRENT APPLICATION NUMBER: US/0301,971
PRIOR APPLICATION NUMBER: US 60/339,971
PRIOR FILING DATE: 2002-11-2-10
PRIOR FILING DATE: 2002-11-2-10
PRIOR FILING DATE: 2002-03-05
PRIOR FILING DATE: 2002-03-05
PRIOR FILING DATE: 2002-03-05
PRIOR PRILING DATE: 2002-03-05
NUMBER OF SEQ ID NOS: 228
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 125
LENGTH: 660
TTREE PRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 100.0%; Score 60; DB 7; Length 660; Best Local Similarity 100.0%; Pred. No. 0.0034; Matches 10; Conservative 0; Mismatches 0; Indels
Sequence 125, Application US/11186284
Publication No. US20050266493A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Homo Sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-11-186-284-125
```

109 NYNFFPRKPK 118 셤 ઠે

1 NYNFFPRKPK 10

ö

RESULT 2 9.10-81-234-917 ; Sequence 917, Application US/10821234 ; Publication No. US20050255114A1

S. Law Della Barton

```
; TYPE: PRT
; ORGANISM: Neisseria gonorrhoeae
US-10-467-657-8637
                                                                                                                                                                                                                                                                                      61.7%;
60.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60.0%;
50.0%;
                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 60.0
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 50.0
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                 107 NYRLFPGEPK 116
                                                                                                                                                                                                                                                                                                                                                                       1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |::||| |:
25 NFSFFPHLPR 34
                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 5
US-10-467-657-8637
                                                                                                                                                                                                                                                  US-11-037-243-79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-11-188-743-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WS-10-193-626-1572

Sequence 1572, Application US/10793626

Publication No. US20050255478A1

GENERAL INFORMATION:
TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS

FILE REFERENCE: PU3480US

CURRENT APPLICATION NUMBER: US/10/793,626

CURRENT APPLICATION NUMBER: 60/164,258

PRIOR FILING DATE: 1999-11-09

NUMBER OF SEQ ID NOS: 4472

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 1572

LENGTH: 198
                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
            APPLICANT: Labat, Ivan
APPLICANT: Stache-Crain, Birgit
APPLICANT: Asche-Crain, Birgit
APPLICANT: Andarmani, Susan
APPLICANT: Tang, Y. Tom
TITLE OF INVENTION: Methods for Diagnosis and Treatment of Preeclampsia
FILE REPERENCE: 821A
CURRENT APPLICATION NUMBER: US/10/821,234
CURRENT FILING DATE: 2004-04-07
PRIOR PAPLICATION NUMBER: US 60/462,047
NUMBER OF SEQ ID NOS: 1704
SEQ ID NO 917
LENGTH: 708
LENGTH: 708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: Description of Artificial Sequence: synthetic; CTHER INFORMATION: amino acid sequence US-10-793-626-1572
                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                        Query Match 100.0%; Score 60; DB 6; Length 708; Best Local Similarity 100.0%; Pred. No. 0.0037; Matches 10; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 37; DB 6; Length 198;
Pred. No. 9.9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 79, Application US/11037243
Sequence 79, Application US/11037243
Publication No. US20050287546A1
GENERAL INFORMATION:
APPLICANT: WHYTE, DAVID
APPLICANT: CHENEREL, SEAN
APPLICANT: CHENEREL, SEAN
APPLICANT: CHENEVICAN, GEEN
APPLICANT: CHENEVICAN, GEEN
APPLICANT: SUDDREMM, SUCHA
TITLE OF INVENTION: NOVEL PROTEASES
FILE REFERENCE: 038602/1214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Artificial Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61.7%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 75.0
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             157 NYNFFPRKPK 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 NYNFFPRKPK 10
                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              41 NYNLFPHK 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 NYNFFPRK 8
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                US-10-821-234-917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-11-037-243-79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                          Score 37; DB 7; Length 483; Pred. No. 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 36; DB 6; Length 71;
Pred. No. 5.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Nicolaides, Nicholas
APPLICANT: Sass, Philip
APPLICANT: Sass, Philip
APPLICANT: Kinzler, Kenneth
APPLICANT: Grasso, Luigi
APPLICANT: Vogelstein, Bert
TITLE OF INVENTION: Methods for generating hypermutable
TITLE OF INVENTION: Yeast
FILE REFERENCE: 01107.00097
CURRENT PELICATION NUMBER: US/11/188,743
CURRENT FILING DATE: 2005-07-26
PRIOR FILING DATE: 2003-08-15
                                                                                                                                                                                                                                                                                                                                                                                               3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 8637, Application US/10467657
Publication No. US20050260581A1
GENERAL INFORMATION:
APPLICANT: CHIRON Sph
APPLICANT: FONTANA Maria Rita
APPLICANT: MASIGNANI Vega
APPLICANT: MASIGNANI Vega
APPLICANT: MASIGNANI Vega
APPLICANT: MASIGNANI Vega
APPLICANT: MONOCOCCAL PROTEINS AND NUCLEIC ACIDS
                                                                                                                                                                                                                                                                                                                                                                                               1; Mismatches
CURRENT APPLICATION NUMBER: US/11/037,243
CURRENT FILING DATE: 2005-05-26
PRIOR APPLICATION NUMBER: US/09/888,615
PRIOR FILING DATE: 2001-06-26
PRIOR PILING DATE: 2000-06-26
NUMBER OF SEQ ID NOS: 150
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 79
LENGTH: 483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILE REFERENCE:
CURRENT APPLICATION NUMBER: US/10/467,657
CURRENT FILING DATE: 2003-08-11
FRIOR APPLICATION NUMBER: GB-0103424.8
FRIOR FILING DATE: 2001-02-12
NUMBER OF SEQ ID NOS: 9218
SOFTWARE: SeqWin99, version 1.04
LENGTH: 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 22, Application US/11188743
Publication No. US20050272140A1
GENERAL INFORMATION:
```

ö

Gaps

ö

```
Query Match 58.3%; Score 35; DB 6; Length 559; Best Local Similarity 62.5%; Pred. No. 61; Matches 5; Conservative 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                     Sequence 2818, Application US/11072512
Publication No. US20060029945A1
GENERAL INFORMATION:
APPLICANT: ISOGAI, TAKAO
APPLICANT: SUGIYAMA, TOMOYASU
APPLICANT: OTSUKI, TETSUJI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 105, Application US/10718264
Publication No. US20040161410A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: JESTIN, Andre
APPLICANT: ALBINA, Emanuel
APPLICANT: Le CANN, Pierre
APPLICANT: BLANCHARD, Philipe
APPLICANT: HUTET, Evelyne
APPLICANT: TRUONG, Catherine
APPLICANT: TRUONG, Catherine
APPLICANT: MAHB, Dominique
APPLICANT: CARIOLET, Roland
                                                                                                                                                                                                                                                                                                                                                                            WAKAMATSU, AI
SATO, HIROYUKI
ISHII, SHIZUKO
YAMAMOTO, JUN-ICHI
ISONO, YUUKO
HIO, YURI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEKI, NACHIKO
YOSHIKAWA, TSUTOMU
OTSUKA, MOTOVUKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     58.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAMECHIKA, ICHIRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 58.3
Best Local Similarity 75.0
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAGAI, KEIICHI
IRIE, RYOTARO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTSUKA, KAORU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Homo sapiens
US-11-072-512-2818
                                                                                                                                                 :|||| |
120 FNFFPENP 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           77 NNFPKKPK 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3 NFFPRKPK 10
                                                                                                                      2 YNFFPRKP 9
      US-10-821-234-947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-718-264-105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 2818
LENGTH: 713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 10
                                                                                                                                                           셤
                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Labat, Ivan
APPLICANT: Stache-Crain, Birgit
APPLICANT: Stache-Crain, Susan
APPLICANT: Andarmani, Susan
APPLICANT: Andarmani, Susan
APPLICANT: Tang, Y. Tom
ITILE OF INVENTION: Methods for Diagnosis and Treatment of Preeclampsia
FILE REPERENCE: 821A
CURRENT APPLICATION NUMBER: US/10/821,234
CURRENT APPLICATION NUMBER: US 60/462,047
PRIOR APPLICATION NUMBER: US 60/462,047
PRIOR PILING DATE: 2003-04-07
NUMBER OF SEQ IN NOS: 1704
SOFTWARE: pt_SEQ_genes Version 1.0
SEQ ID NO 947
LENGTH: 559
                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 26, Application US/11183294;
Fublication No. US20060019383A1;
GENERAL INFORMATION:
APPLICANT: Nicolaides, Nicholas C.
TITLE OF INVENTION: CHEMICAL INHIBITORS OF MISMATCH REPAIR
FILE REFERENCE: MOR-0475;
CURRENT APPLICATION NUMBER: US/11/183,294
CURRENT FILING DATE: 2005-07-15;
PRIOR FILING DATE: 2001-01-15;
NUMBER OF SEQ ID NOS: 44
SOFTWARE: Patentin version 3.3
                                                                                                                                                                                                                                       Score 36; DB 7; Length 1360;
Pred. No. 98;
2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 36; DB 7; Length 1360;
Pred. No. 98; 1; Indels
2; Mismatches 1; Indels
PRIOR APPLICATION NUMBER: US/09/788,657
PRIOR FILLING DATE: 2001-02-21
PRIOR PILLING DATE: 2000-02-23
NUMBER OF SEQ ID NOS: 25
SOFTWARE: PastSEQ for Windows Version 3.0
SEG ID NO 22
LENGTH: 1360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Sequence 947, Application US/10821234; Publication No. US20050255114A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                     62.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60.0%;
62.5%;
                                                                                                                                                                                                                                     Query Match
Best Local Similarity 62.5
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 60.0
Best Local Similarity 62.5
Matches 5; Conservative
                                                                                                                                                           TYPE: PRT
ORGANISM: Homo sapiens
US-11-188-743-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; ORGANISM: Homo sapiens
US-11-183-294-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                           |:|||: |
YSFFPKSP 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |:|||: |
YSFFPKSP 15
                                                                                                                                                                                                                                                                                                                       2 YNFFPRKP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 YNFFPRKP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 26
LENGTH: 1360
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 8
US-10-821-234-947
                                                                                                                                                                                                                                                                                                                                                                                                                                            US-11-183-294-26
                                                                                                                                                                                                                                                                                                                       ઠે
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 35; DB 7; Length 713; Pred. No. 77; 1; Mismatches 1; Indels
APPLICANT: NAGAHARI, KENJI
APPLICANT: MASUHO, YASUHIKO
TITLE OP INVENTION: Novel full length cDNA
FILER REFERENCE: 084335-0191
CURRENT APPLICATION NUMBER: US/11/072,512
CURRENT FILING DATE: 2005-03-07
PRIOR FILING DATE: 2002-01-25
PRIOR APPLICATION NUMBER: US 60/350,978
PRIOR FILING DATE: 2001-11-05
PRIOR SEQ ID NOS: 4096
NUMBER OF SEQ ID NOS: 4096
SOFTWARE: Patentin Ver. 2.1
```

.* .*.

```
APPLICANT: ANGUE, Cominique
APPLICANT: MAHE, Dominique
APPLICANT: MAHE, Dominique
APPLICANT: CARIOLET, Reland
APPLICANT: CARIOLET, Reland
APPLICANT: MADEC, Francois
TITLE OF INVENTION: CIRCOVIRUS SEQUENCES ASSOCIATED WITH PIGLET WEIGHT LOSS
TITLE OF INVENTION: DISEASE (PWD)
FILE REPRESENCE: 065691/0176
CURRENT PAPLICATION NUMBER: US/10/718,264
CURRENT FILING DATE: 2003-11-21
PRIOR APPLICATION NUMBER: US/09/514,245B
PRIOR PLING DATE: 1997-12-05
PRIOR PELING DATE: 1997-12-05
NUMBER OF SEQ ID NOS: 170
SOFTWARE: PatentIn version 3.0
SEQ ID NO 105
LENGTH: 15
                            ALBINA, Emanuel
Le CANN, Pierre
BLANCHARD, Phillipe
HUTET, Evelyne
ARNAULD, Claire
TRUONG, Catherine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; TYPE: PRT
; ORGANISM: Type A PWD circovirus
US-10-718-264-105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          56.7%;
62.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | |:|| |
8 YEFYPRDP 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 5; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 YNFFPRKP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: JESTIN, Andre
APPLICANT: JESTIN, Andre
APPLICANT: JESTIN, Emanuel
APPLICANT: Le CANN, Pierre
APPLICANT: Le CANN, Pierre
APPLICANT: Le CANN, Pierre
APPLICANT: HUTET, Evelyne
APPLICANT: ARNAND, Catherine
APPLICANT: TRUONG, Catherine
APPLICANT: TRUONG, Catherine
APPLICANT: MAHE, Dominique
APPLICANT: MAHER: LOSO11016
CURRENT APPLICATION NUMBER: US/10/718,264
CURRENT APPLICATION NUMBER: US/09/514,245B
FRIOR FILING DATE: 2000-02-28
FRIOR FILING DATE: 1997-12-05
FRIOR FILING DATE: 1997-12-05
NUMBER OF SEQ ID NOS: 170
SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
APPLICANT: MADEC, Francois
TITLE OF INVENTION: CIRCOVIRUS SEQUENCES ASSOCIATED WITH PIGLET WEIGHT LOSS
TITLE OF INVENTION: DISEASE (PWD)
FILE REFERENCE: 065691/0176
CURRENT APPLICATION NUMBER: US/10/718,264
CURRENT FILING DATE: 2003-11-21
PRIOR APPLICATION NUMBER: FR 97/15396
PRIOR FILING DATE: 1997-12-05
NUMBER OF SEQ ID NOS: 170
SOFTWARE: Parentin version 3.0
SEQ ID NO 105
LENGTH: 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                            Score 34; DB 6; Length 15;
Pred. No. 2.6;
1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 34; DB 6; Length 15;
Pred. No. 2.6;
1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Sequence 106, Application US/10718264; Publication No. US20040161410A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                       ; TYPE: PRT
; ORGANISM: Type A PWD circovirus
US-10-718-264-105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT

ORGANISM: Type A PWD circovirus
US-10-718-264-106
                                                                                                                                                                                                                                                                                                                                                                                                                   56.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      56.7%;
                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 62...
5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | |:|| |
8 YEFYPRDP 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 5; Conservat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 YEFYPRDP 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 YNFFPRKP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 YNFFPRKP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-718-264-106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
```

```
APPLICANT: MAHE, Dominique
APPLICANT: MAHE, Dominique
APPLICANT: MAHE, Dominique
APPLICANT: MAHE, Dominique
APPLICANT: MAHE, Poland
APPLICANTON: DISEASE (PWD)
FILE REPERENCE: 055691/0176
CURRENT PILING DATE: 2003-11-21
PRIOR APPLICATION NUMBER: US/09/514,245B
PRIOR APPLICATION NUMBER: FR 97/15396
SPROW FILING DATE: 1997-12-05
SPROWRARE: Patentin version 3.0
SEQ ID NO 106
                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                         Gaps
                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
Score 34; DB 6; Length 15;
Pred. No. 2.6;
1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         56.7%; Score 34; DB 6; Length 15; illarity 62.5%; Pred. No. 2.6; Conservative 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                  US-10-718-264-106

Sequence 106, Application US/10718264

Publication No. US20040161410A1

GENERAL INPORMATION:
APPLICANT: JESTIN, Andre
                                                                                                                                                                                                                                                                                                                                                                            ALBINA, Emanuel
Le CANN, Pierre
BLANCHARD, Phillipe
HUTET, Evelyne
ARNAULD, Claire
TRUONG, Catherine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; TYPE: PRT
; ORGANISM: Type A PWD circovirus
US-10-718-264-106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity
Matches 5; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 YNFFPRKP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
```

US-10-718-264-105
Sequence 105, Application US/10718264
Publication No. US20040161410A1
GENERAL INFORMATION:

RESULT 12

```
Search completed: February 21, 2006, 08:26:29 Job time : 6.57895 secs
                                                                      US-10-895-064-1953

US-10-895-064-1953

Sequence 1953, Application US/10895064

Publication No. UG20060018923A1

GENERAL INFORMATION:
APPLICANT: PERINS, JOSEPH S.M.
APPLICANT: PUBLY, WWOK YUNG
APPLICANT: POON, LIT MAN
APPLICANT: THEN, WWOK HUNG
APPLICANT: THENG, PREDERICK C.
TITLE OF INVENTION: APROPERICK C.
TITLE OF INVENTION: THEREOF
TITLE OF INVENTION: THEREOF
TITLE OF INVENTION: THEREOF
TITLE OF SEQ ID NOSE 2918
CURRENT FILING DATE: 2004-07-21
NUMBER OF SEQ ID NOS: 2918
SEQ ID NO 1953
LENGTH: 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 56.7%; Score 34; DB 7; Length 108; Best Local Similarity 83.3%; Pred. No. 18; Matches 5; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          56.7%; Score 34; DB 6; Length 21; 66.7%; Pred. No. 3.6; 1tive 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 244, Application US/11049536
| Publication No. US20060024297A1
| GENERAL INFORMATION:
| APPLICANT: Wood, Clive R.
| APPLICANT: Wood, Clive R.
| APPLICANT: Word, Clive R.
| APPLICANT: Hoet, Rene
| APPLICANT: Hotel, Rene
| TITLE OF INVENTION: TIE COMPLEX BINDING PROTEINS
| TITLE OF INVENTION: TIE COMPLEX BINDING PROTEINS
| TITLE OF INVENTION: TIE COMPLEX BINDING PROTEINS
| TITLE OF INVENTION: US 0/11/049,536
| CURRENT FILING DATE: 2005-02-02
| PRIOR APPLICATION NUMBER: US 60/494,713
| PRIOR PILING DATE: 2003-08-12
| SOFTWARE: PRESEQ for Windows Version 4.0
| SEQ ID NO 244
| TYPE: PRI
| GENTH: 108
| TYPE: PRI
| GRANISM: ARTIFICIAL SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Corononavirus-HKU1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; OTHER INFORMATION: Antibody US-11-049-536-244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 66.7
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 YNPFPRKPK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | |: ||||
11 YLFYKRKPK 19
| |:|| |
4 YEFYPRDP 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-895-064-1953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 15
US-11-049-536-244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
```

ins Page Blank (uspto)